University News

A WEEKLY JOURNAL OF HIGHER EDUCATION Vol 36 No 48 NOVEMBER 30, 1998 Rs 9.00

S.H. MOHSIN

Education in Iran

M.R. TAMBE

Quality and Quality Audit of Higher Education

A.S. PRABHAKAR, M.R. ANSARI & H.S. VIJAYAKUMAR

Subject Preference for Postgraduate Studies by Graduate Students

BAL PRABHAKAR SINGH

Promotion of Population Education at University Level

BRENDA M. GOURLEY

The Dangerous Fault Line

—Convocation Address

SWARNA JAYANTI AWARDS

CSIR/TWAS FELLOWSHIP

IGCAR RESEARCH CENTRE

Association of Indian Universities

REGIONAL ENGINEERING COLLEGE

TIRUCHIRAPPALLI-620 015 TAMIL NADU

DEPARTMENT OF MATHEMATICS AND COMPUTER APPLICATIONS

ADMISSIONS TO POST GRADUATE FULL TIME PROGRAMMES

MCA/M.Sc. (OR&CA)/PGDITM-1999

HIGHLIGHTS OF RECT

- Programmes are framed to impart technical & managerial skills to the students in the field of Information Technology
- RECT is one of the premier institutions in the country to introduce MCA programme having a track record of 100% placement.
- Guest lectures by eminent I.T /Management professionals are extra inputs for these programmes.
- well stocked computerised library and a 24 hour Computer Centre which is one of the largest LAN in the country
- Round the clock computer accessibility with INTERNET through VSAT & VSNL with 64 kbps.

Course Name	Duration	*Eligibility	
Master of Computer Applications (M.C.A) (50% of Seats Reserved for Other States)	3 Years	B.A./B.Sc./B.Com/BBM with Mathematics or Statistics as Main/Ancillary	*From any University recognised by UGC with a minimum of 60% marks
Master's Degree in Operations Research & Computer Applications M.Sc. (OR & CA)	2 Years	Any Bachelor's Degree with Mathematics or Statistics as Main	
Post Graduate Diploma in Information Technology and Management (PGDITM)	1 Year	Any Bachelor's Degree with good Computer Knowledge	

NOTE : ◆ **For all courses a minimum of 50% of Marks for SC/ST**
◆ **Students appearing for final exams in 1999 can also apply**

SELECTION : Purely on the basis of marks scored in the Entrance Test to be held as per the following Schedule

Course	Examn. Date	Time	Test Centres
M.C.A.	27.02.99	10 00 a.m. - 12.30 p m	CHENNAI, TRICHY, MADURAI, KOCHI, HYDERABAD, NEW DELHI
M.Sc. (OR&CA)	27.02.99	02 30 p.m. - 04.30 p m.	TRICHY CHENNAI
PGIDTM	28.02.99	10.00 A.M. - 12.00 noon	TRICHY CHENNAI

The test centre of your choice should be indicated while sending the application RECT reserves the right to change/cancel any test centre

APPLICATION & PROSPECTUS

Prospectus and appliction form can be obtained from
Dr. A.K. BANERJEE
Admissions Co-ordinator
Department of Mathematics &
Computer Applications
Regional Engineering College,
Tiruchirappalli-620 015.
Tel : (0431) 552281 - Ext : 367 Fax : 552133

Mail your request or apply in person for prospectus and application forms with 2 self-addressed slips by enclosing a crossed demand draft for Rs. 600/- (Rs. 200/- for SC/ST) drawn in favour of **'The Principal, Regional Engineering College, Tiruchirappalli'** payable at Tiruchirappalli-620 015. (SBI 1617) Write behind the DD your name, postal address and course applied for. **Specify MCA or M.Sc. (OR & CA or PGDITM.**

Candidate applying for more than one course should apply separately. College will not be responsible for any loss or delay in transit.

Issue of application starts from	:	**01.12.1998**
Last date for issue of applications	:	**24.01.1999**
Last date for receipt of filled in applications	:	**31.01.1999**

TIRUCHIRAPPALLI

Dr. P. Aravindan,
PRINCIPAL

RG-TRY-RECT-42-98-99

UNIVERSITY NEWS

VOL. 36 NOVEMBER 30
No. 48 1998
Price Rs. 9.00

A Weekly Journal of Higher Education published by the Association of Indian Universities

IN THIS ISSUE

Education in Iran 1
Quality and Quality Audit of Higher Education 4
Subject Preference for Postgraduate Studies by Graduate Students 6
Promotion of Population Education at University Level 11

Convocation

Visva-Bharati, Santiniketan 14

Campus News

Swarna Jayanti Awards 20
IGCAR Research Centre 21
Seminar on Unity of Religion 23
Hindi Chair at Bucharest Varsity 23
Seminar on Women's Studies 24

Agriculture

TNAU Introduces New Paddy Harvester 25
IGAR Kisan Mela 25

News from UGC

Countrywide Classroom Programme 25

News from Abroad

CSIR/TWAS Fellowship for Postdoctoral Research 26
Book Review 27
Classified Advertisements 34

Opinions expressed in the articles are those of the contributors and do not necessarily reflect the policies of the Association.

Editor :
SUTINDER SINGH

Education in Iran

S.H. Mohsin*

Introduction

According to a report published by the Unesco there are fifty seven million teachers employed today in the world's formal educational systems. Teaching is a profession which is noted for its diversity. It includes teachers for all classes starting from kindergarten and going upto higher degrees and research at universities. It is the largest category of people engaged in professional and technical occupation. This magnitude makes it difficult for the society to accord a status to the teaching profession similar to the group of professionals, having much smaller numbers, like physicians, engineers and lawyers.

The number of teachers in Iran employed for school (primary and secondary) education is nine lakhs while for higher education it is 32000. The corresponding figures for the number of pupils/students are 18 millions and one million. The number one million includes those enrolled under distance education programmes. There are 36 universities in Iran including 15 in Tehran.

It may be of interest to mention here that Iran covers an area of 1.645 million square kilometres and has a population of about 58 million. The per capita income is about US$ 2600 per annum. The area covered by India is almost just double (3.280 million square kilometres) and her population is about 17 times (984 millions) as much. 93 per cent of the people are Shia Muslims, 5 per cent Sunni Muslims and the rest Zorastrians, Jews, Christians and Bahais.

Historical Background of Iran

The Persian empire was established in 549 B.C. by Cyrus the Great. In 641 A.D. the Persians were defeated by the invading Arabs and Islam replaced the Zorastrian religion. During the 19th century the affairs of Persia came increasingly under British and Russian control. Following World War I Persia was recognized as an independent nation, but was virtually a British protectorate.

In 1921 Reza Khan established a military dictatorship and had himself declared a hereditary monarch, Reza Shah Pahlavi in 1925. In March 1935 the name of the country was changed to Iran. In 1941 the Great Britain occupied Iran and forced the abdication of Reza Shah in favour of his son Mohammad Reza Shah Pahlavi. Iran became a member of the United Nations in 1945.

The Shah pursued a pro-western policy of modernization and anti-communism and was rewarded with massive military and economic aid. His programmes became popular with the urban business sector but deeply resented by the rural population and the urban poor.

Protests against the rule of the Shah resulted in widespread violence in late 1978. The Shah went into exile on 16th January 1979 and Iran's dominant religious leader, Ayotollah Ruhollah Khomeini, returned to Iran from his exile in France. Thousands of people were arrested and executed by the religious militia forces. Ayotollah Khomeini took over direct executive powers of the government on 22nd January 1981.

**Ex Dean, Faculty of Engineering & Technology, Ex Acting Vice-Chancellor, A.M.U., Aligarh-202 002.*

On 22nd September, 1980 a dispute between Iran and Iraq over the Shatt al-Arab water way flared into open warfare. Fighting continued thereafter with no significant permanent gains for either side. In September 1988 a U.N. initiative led to a cease-fire between Iran and Iraq and to the opening of negotiations to find a permanent settlement to the war. Hopes of a comprehensive peace settlement were raised by a meeting of the Iranian and Iraqi Foreign Ministers in Geneva in July 1990, but were swiftly overshadowed by Iraq's invasion of Kuwait in August. On 16th August Saddam Husain sought an immediate peace with Iran accepting all the claims that Iran had pursued since the declaration of a cease-fire. Exchanges of prisoners of war took place and in September 1990 Iran and Iraq restored diplomatic relations.

Development of Education

Until the middle of the 19th century, formal education in Iran was almost entirely provided by the Islamic *maktabs*. These were private schools associated with a mosque and supported by the contribution of the wealthy religious-minded people. Instruction in the *maktabs* consisted of memorization of the Quran and the poetry of Saadi, Hafez, etc. Upon completion of the *maktab*, some students continued a classical education in a *madarsa*. The subjects included Islamic philosophy, science, literature and mathematics. A still higher level of education was available in the *nizamiyah* equivalent to a secondary school.

It was only in 1841 that a government supported polytechnic *Dar-al-Funoon* was established in Tehran on European model. It had Austrian professors and lecturers and offered the courses in military science, engineering, mining, chemistry, pharmacy and mineralogy. There were no further developments in education during the next half century or so. The Society for the Establishment of National Schools (later known as Education Council) was founded in 1897. This led to the opening of many primary and secondary schools. By 1911 the educational system in Iran consisted of 128 primary schools, two secondary schools and three colleges — the School of Political Science, founded in 1901, the Karaj College of Agriculture, established in 1902 and the School of Fine Arts, founded in 1911.

The first university of Iran, the University of Tehran was established in 1934 and the Teachers Training College, founded in 1918, and the School of Law, established in 1921 were brought under the university, which started with six faculties — (i) Letters, (ii) Science, (iii) Law, Economics, and Political Science, (iv) Theology, (v) Engineering, and (vi) Medicine.

After the Second World War the influence of the U.S.A. in education started growing replacing the earlier French system. A number of universities were established — the University of Tabriz in 1947, the Universities of Mashhad, Isfahan, and Shiraz in 1949, followed by the University of Gondi, Shahpour in 1957. The National University of Iran was opened in 1960. Several universities including a few open universities have been established subsequently.

The revolution that toppled the Shah in 1979 tried to eliminate the American influence during 1945 to 1979 on Iranian education. The universities in Iran were closed from 1980 to 1983 and efforts were made to ensure the thrust of Islamic philosophy in education to the extent possible.

School Education

The schools are run by the government. There were however, a number of private schools including a few run by foreign groups and missions before the revolution of 1979. The government school system does not include pre primary or kindergarten education, which is entirely a private activity.

The five year primary school begins at the age of six and is compulsory and free of cost. Full enrolment at the primary level has almost been achieved with 100 per cent boys and 96 per cent girls in the relevant age group (6 to 11 years).

The secondary education is neither compulsory nor free, although the school fees are nominal. The secondary school students enter first a three year guidance cycle. Those who successfully complete the guidance cycle can continue in the four year academic branch of the secondary school consisting of two stages — the first stage of three years following a uniform curriculum and the second stage of one year offering specialization in arts, science (mathematics and biology), etc. Those who complete this four year academic cycle become eligible for studying at a university (*danishgah*)/college (*danishkadeh*)/institute (*madrasae-aali*).

Students whom the guidance cycle has directed into the vocational/teachnical branches enter either a two-year vocational course or a four year technical course at a technical school (*honaristan*). They form the skilled manpower in the industry and other organizations.

At both primary and secondary levels textbooks are provided almost free of cost with token charges.

Higher Education

Admission to all universities and to the nearly 200 colleges and institutes that provide degree level education is through a national entrance examination administered by the Ministry of Science and Higher Education.

The bachelor's degree (license) is awarded after (i) four years of study in arts, science nursing, etc, (ii) five years in engineering and architecture, (iii) six years in dentistry, and (iv) seven years in medicine. An additional two years of study beyond the bachelor's degree are usually required for the master's degree (*fauqe* license). The highest degree is the doctorate (doctora) which usually requires three years after the master's degree.

The various academic positions at a university (or college or institute) are *murabbi* or instructor/assistant lecturer, *ustadyar* or assistant professor, *danishyar* or associate professor and *ustad* or professor. The usual minimum qualifications and experience required for the four positions starting from the *murabbi* or instructor are a master's degree in the relevant subject, a doctoral degree with four years of teaching experience, and a doctoral degree with nine years of teaching experience. For the posts of associate professor and professor published work is also required.

An academic department or a *gurooh* is looked after by the head, the dean heads the faculty (for both college or faculty the term *Danishkadeh* is used), and the chancellor (in our country he would be called a vice chancellor) heads the university. The dean is often assisted by one or more vice deans and the chancellor by one or more vice chancellors (in our country they would be called pro vice chancellors).

Training of Teachers

As in all developing educational systems, the shortage of trained teachers at all levels is a critical constraint in the quality of education, specially in the light of rising enrolments. Shortages are specially reported in the vocational and technical education, where qualified graduates prefer better paying jobs in the industry.

Secondary school teachers are trained at the National Organization for Teacher Training and Educational Research (NOTTER). It provides two different programmes. A one-year programme, open to the bachelor's degree holders, prepares teachers for both cycles of secondary education. A four year programme leading to a bachelor's degree, is open to those who have completed their secondary school studies.

The vocational teachers training college admit those who have completed their secondary school studies or the four year technical studies at a *honaristan.* The four-year programme leads to a degree.

The training for primary teachers is provided in teachers training colleges, or normal schools. The normal schools offer a general secondary school curriculum alongwith courses in psychology and pedagogy.

Medium of Instruction

The medium of instruction at all levels is Persian. Although it is an old and rich language, there are very limited books in Persian, specially in professional courses like engineering, medicine, etc at the degree level. Consequently textbooks and supplementary material are required to be translated usually from English into Persian. This presents many difficulties and the students have to depend upon limited material, mostly the lecture notes. Reference materials are poorly available for advanced study and research (excepting of course the subjects of Persian and Persian history). The libraries of the universities/faculties/colleges are not well maintained and frequently lack modern books and journals.

English is used as the first foreign language in the schools and is taught for the last six years at the secondary level. Its use has hardly declined after the revolution.

Evaluation System

The system of evaluation or the grading system is essentially same at all levels of education. An examination in a course carries a maximum of 20 marks. The minimum passing marks are 10 and there are four passing grades — A being the best and D the poorest. The usual grade ranges are : D 10-11, C 12-13, B 14-15, and A 16-20. There are periodical tests during a session, whose weightage is suitably added while preparing the final result.

The academic session begins on 23rd September (Ist *Mehr* in Iranian calendar) and goes for about 9 months upto around June end. The session is usually divided into two semesters, specially at the universities, each requiring about four months of studies. There is a break of about 12 days in schools, colleges, and universities starting on the Iranian new year or *nau roz,* i.e. on Ist Farvardin or 21st March. There are about 10 holidays in a year besides the new year holidays. There are six working days in a week with Friday as the weekly holiday. Generally Thursday is a half day.

References

1. UNESCO. *Teachers and Teaching in a Changing World.* World Education Report. Unesco, Paris, 1998.
2. George Thomas Kurian. *World Educational Encyclopedia,* Vol. II. Facts on File Publications, New York, 1998.
3. *The Europa World Year Book 1998,* Vol. I, 39th Edition, Europa Publications Ltd., London, 1998.
4. *The World of Learning 1998,* 48th Edition, Europa Publications Ltd., London, 1998.

Quality and Quality Audit of Higher Education

M.R. Tambe*

Total Quality Management movement, one of the recent developments in management, has increased quality awareness among the managers, policy makers and academicians all over the world. It has also caused many organisations to undertake introspection of their systems and activities. There is every reason to be happy that we have also made a beginning in this direction.

The concepts of Quality and Quality Audit are very closely interlinked. These concepts have now been standardised by International Standards Organisation in their series 9000 to 9004.

Quality

The concept of Quality has been defined as "The totality of features and characteristics of a product or service that bear on the ability to satisfy stated or implied needs." The features or characteristics may be 1) Meeting well defined purposes; 2) Satisfying customers; 3) Complying with applicable standards; 4) Reliability of products/services; 5) Excellence; 6) Complying with safety requirements; and 7) Complying with Environment requirements.

Quality Audit

It has been defined as "A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives." There may be various purposes for conducting quality audit :

1) Providing methodology to compare and ensure adequacy of quality procedure;
2) Satisfying that procedures considered necessary are being correctly and effectively implemented;
3) To satisfy external certification agency that proper and ongoing control of quality system exists;
4) To meet regulatory and statutory requirements; and
5) To identify opportunities for improvement.

Types of Quality Audit

Quality audits are classified under various categories. On the basis of aspect of audit, there can be following types : 1) System audit, 2) Product Audit, 3) Process Audit, 4) Compliance Audit — to ensure that documented system is implemented, 5) Design Audit, and 6) Self-governance Audit — Audit of various functions and structures of quality systems.

On the basis of who conducts Quality Audit there are three types : 1) First Party Audit (Self/Internal Audit); 2) Second Party Audit (Buyer on suppliers); and 3) Third Party Audit (Authorised/Certified person or body conducts Audit).

The concepts of Quality and Quality Audit have now been widely accepted by the industrial units who wish to improve their performance and achieve excellence. The new wave of globalisation and privatisation has compelled industrial and service business units to internalise these ideas and techniques of quality management.

Another, comparatively recent development in the economic and business world is an ever growing awareness about services sector, which was rather neglected till recent times. It is now widely acknowledged that in future services will be very crucial in determining the pace of economic development as well as standards of living. Services sector has been increasingly focused in the science of economics and management — as it touches upon every walk of our life.

Education as a Service

Education is one of the most crucial services in the economy. The quality of life of society at large and the individuals in the society, largely depends upon the quality of education.

Various features of services sector that apply to Education : 1) Education is intangible as in case of other services; 2) Precise standardisation of education is not possible; 3) Education service cannot be patented; 4) Education cannot be stored; 5) Though the service is exchanged — the ownership rests with the provider; 6) Production and consumption of this service are simultaneous; and 7) Customers are involved in production of these services.

Principal, M.D. Palesha Commerce College, Dhule.

Besides these basic characteristics there are some special features present in educational services. They are :

1) Educational service is at one and the same time personal, professional, institutional and in many cases govt./quasi govt. service;
2) It is a high contact service — it requires a continuous and close interaction between service provider and customer;
3) Till recently it was mainly a localised service — major part continues to be localised even today; and
4) Demand for the educational services has been outpacing supply.

If we look at our education system as it exists today we will find that its main features are that the system lacks flexibility, is heavily dependent on govt. for financial assistance, innovative approach is generally absent, composition is — Govt., Aided, Non-grant, is examination oriented, and aims at mass education.

Institutions : Majority face resources crunch; Some well placed institutions are complacent; Majority have either obsolete or inadequate facilities; and Have to work under tight control of bureaucracy and/or local managerial leadership.

Teachers : Are they professional and committed? Do they have sufficient motivation? Are they sufficiently empowered? Are good teachers really respected by the system and society? Do they have freedom of thought and action? Is there creativity and if yes, is it nourished?

Students : Are they quality conscious? and Do they have many wrong and misdirected notions about their rights?

Many of the above are pressing problems in our education system. Of course, it must also be mentioned that due to many compelling forces there is a steady shift in the paradigm in education. We have to face new realities which may be briefly stated as follows :

1) Diversity of learners is increasing;
2) Diversity of purposes of learning is also increasing;
3) Diversity of contact between teacher and student is also increasing;
4) There is a beginning of change in the institutional framework;
5) There are some private as well as global service providers entering in the system lately;
6) The financial framework and traditional pattern of assistance is changing;
7) Consumer Protection Act is now applicable to education sector;
8) New forces will change the system from provider led to customer driven; and
9) Expectations as regards vocationalisation and quality will be more evident in the days to come.

It is against this background that we shall have to consider and apply the quality test.

The question will always arise as to what will be and what should be the focal point of quality and quality audit. Whether it will be the system, institution, product (curriculum/syllabus), process, teacher? Where should we begin?

No doubt we shall have to accept and internalise quality and quality audit concepts in the field of education. We shall have to experiment with the Total Quality Management. For this we will be required to :

1) Redefine objectives of education;
2) Redefine organisation culture;
3) Reduce excessive examination orientation;
4) Adopt Benchmarking (study successful systems);
5) Take a long term view and set realistic time expectations;
6) Empower and motivate service providers;
7) Go outside for models; and
8) Strive for continuous improvements.

These will be the main areas of quality audit of education.

References

1. Burton R. Clark. *The Higher Education System.* University of California, 1983
2. Christopher Hart and Christopher Bogan. *The Baldrige.* McGraw Hill, 1992
3 Jerome S. Arcaro. *Quality in Education* Vanity Books Intl., 1997.
4. Joseph Juran and Gryna Quality Planning and Analysis. Tata McGraw Hill , 1982.
5. M.S. Gore. *Indian Education — Structures and Process.*
6 Suresh Dalela and Saurabh. *ISO 9000 — A Manual for TQM. S Chand,* 1997.

Subject Preference for Postgraduate Studies by Graduate Students

A.S. Prabhakar*
M.R. Ansari**
H.S. Vijayakumar***

Introduction

Government of India set up in fairly quick succession at least three commissions to review the then existing agricultural research and education systems. These commissions recommended the establishment of agricultural universities in India.

The Indian Council of Agricultural Research (ICAR) is a nodal agency monitoring and coordinating higher education in the country through 28 State Agricultural Universities, 4 Deemed to be Universities and one Central University. In addition to this there are about 30 agricultural colleges affiliated to general universities. These State Agricultural Universities offer undergraduate programmes in 11 fields apart from postgraduate educational programmes in more than 80 disciplines.

These universities follow trimester/semester and course credit system of education with partly internal/external evaluation. The master's degree is normally of 2 years and the Ph.D. degree of 3 years. The country now produces 3000 postgraduates every year to meet the manpower demands in the country.

There is higher prospect for commercialization in agriculture. This is all the more crucial with government's policy for privatization, liberalization and export promotion. This is in line with the international scene and opening of the international market in India after signing of Dunkel proposals. The agricultural education system has to fulfil the changing demands of manpower in agriculture. There is also a need to develop better linkages with industries and other agencies using agricultural manpower.

The Government of India is also taking various steps to give agriculture the status of an industry so that agriculture sector becomes more remunerative. On the other hand, job market in private sector is slowly and steadily increasing and hence most of the graduates opt for higher studies. The percentage of students opting for postgraduation is increasing every year. This may be because of specialization in various subjects and job opportunities in the private sector. Hence, it is interesting to study the pattern of preferences for the subjects and reasons for the preferences by the graduate students. Against this background, this study was undertaken with the following objectives :

1) To know the pattern of preferences for the subjects, and
2) To find out the reasons for preferring the specific subject for postgraduation.

Methodology

The Study was conducted at the main campus of University of Agricultural Sciences (UAS), Dharwad at the time of admission to postgraduate degree programmes during 1997-98. All the graduate students who appeared for written examination for M.Sc. degree were considered as sample for the study. A structured and pre-tested questionnaire consisting of multiple reasons for preferring a discipline/subject was administered to 365 candidates to collect information. But only 116 candidates from different subjects returned the filled in questionnaire. Since Masters degree programmes are offered in five faculties, viz Agriculture, Home Science, Forestry, Agricultural Engineering and Veterinary, the preferences of the students were studied separately for each faculty so as to bring out the actual reasons for preferring a particular subject for specialization.

Findings

An examination of the data in Table 1 reveals that Horticulture was the first preferred subject for postgraduation by 67 (23.26%) graduate students in the agricultural faculty, whereas Genetics and Plant Breeding was next preferred subject by 51 (17.71%) of the graduate students. The subjects Agronomy, Seed Science and Technology and Agril. Entomology were 3rd, 4th and 5th preferences by 48 (16.67%), 23

---

*Director of Instruction (PGS), University of Agricultural Sciences, Dharwad-580 005.

**Professor, Department of Agril. Extension Education,

***Professor and Head, Department of Agril. Marketing and Cooperation, College of Agriculture, Dharwad-580 005.

(7.99%) and 20 (6.94%) of graduate students respectively. The trend of preferring a specific subject was similar during 1993-94 and 1996-97 as reported by Sundaraswamy *et al* and Halakatti and Sambrani during 1997 except for the subject Agril. Entomology in first five ranks. Other subjects were placed at lower ranks in preferential ranking.

In the faculty of Home Science, 50 per cent of the applicants preferred Foods & Nutrition giving it the first rank followed by Human Development (22.73%) and Home Science Extension Education (13.64%). In Forestry faculty, all the 15 applicants preferred only Silviculture and Agroforestry for specialization. Similarly in Agricultural Engineering where only two specializations were available, 83 per cent of the applicants preferred to take Irrigation and Drainage Engineering for specialization. In the Veterinary faculty where six specializations are available, 32 per cent each preferred VRG and Veterinary Pathology followed by Veterinary Microbiology (14.29%) and VAN (10.71%).

Further examination of the data in Table 1 reveals information on subjects preferred by the graduate students as second preference. Agronomy stands first in the preferential ranking as 41 (14.69%) graduate students preferred it first. The second rank was shared by Agril. Entomology and Plant Pathology subjects each with 32 (11.47%) students giving second preference. The subjects, Seed Science & Technology and Agril. Microbiology obtained 3rd and 4th ranks with 31 (11.11%) and 23 (8.24%) students respectively. The 5th rank was shared by Horticulture and Soil Science subjects each of which was preferred by 21 (7.53%) graduates.

A careful view of the Table further reveal that in the Home Science faculty, Human Development ranked first with 10 (38.46%) graduates opting for this subject under second preference followed by Family Resource Management with 8 (30.77%) graduates and Home Science Extension with 4 (15.38%) graduates.

In the Forestry faculty, all the 15 who had given first preference for Silviculture and Agro Forestry gave second preference to Forest Biology and Tree Improvement, the only other subject available for specialization. However, the other one student giving second preference to Silviculture and Agro Forestry may have given first preference to any subject in agriculture faculty for which forestry graduates are eligible. In Agricultural Engineering an exchange of the numbers between Irrigation & Drainage Engineering and Farm Power & Agro Energy was observed vis-a-vis the order of first preference.

In the Veterinary faculty, Veterinary Pathology stood first with 8 (27.59%) graduates opting it for second preference followed by Veterinary Reproduction & Gynaecology with 6 (20.69%) and Veterinary Microbiology and Veterinary Surgery & Radiology with 5 (17.24%) each.

The data presented in Table 2 indicates various reasons given by the graduate students for first preference of a specific subject to seek admission into the postgraduate degree programme.

A scrutiny of the data reveals that in general 92.24 per cent of the graduate students preferred a specific subject for admission because of "interest in the subject", followed by "Scope for Employment" and "Interest created in the subject by the UG teacher" (62.93%) each and "Scope for Research" (58.62%). Further, the data indicates that just more than one third of the graduate students gave the reasons for first preference of a specific subject as "getting admission in preferred college" (35.34%) "competency of faculty" (37.93%) and "laboratory facilities" (38.79%). It is interesting to note that 23.27% of the graduate students preferred a specific subject to prepare for "competitive examinations".

On further scrutiny of the table for disciplinewise analysis of the data, it is clear that a similar trend was observed with respect to the reasons given by the graduate students for preferring a discipline as first.

The data in Table 3 brings into light various reasons given by the graduate students for second preference of a specific subject to seek admission into the postgraduate degree programme.

The data shows that 43.68 per cent of the graduate students gave second preference to a specific subject because of "Scope for Employment" followed by "Interest created in the subject by UG teacher" and "Scholarship facilities" by 41.74% each of the graduate students. Whereas the reasons "Interest in the subject" and "Scope for Research" were given by 34.85% and 32.03 per cent of the graduate students, respectively. "To prepare for competitive examination", "getting admission in preferred college" "laboratory facilities", "do not get admission in any other subject", "just to spend time in the university" and "competency of the faculty" were the other major reasons given by 28.15%, 26.21%, 24.27%, 23.30% and 18.44% of the graduate students respectively for choosing a specific subject as the next best.

A close examination of the disciplinewise analysis of the data in Table 3 bring into focus a different trend with respect to the reasons given by the graduate students for second preference of a specific subject.

Three fourth (75%) of the graduate students gave the reasons "getting admission in preferred college" followed by 62.5% as "scholarship facilities" for the discipline Plant Pathology as the second best.

A majority of the students 66.66 per cent each gave the reasons "scope for employment" and "interest created in the subject by the UG teachers" for preferring Agronomy discipline as the second best.

The discipline Seed Science and Technology was preferred second by 77.77% of the graduate students and the reason was "scope for employment".

"Scope for employment" and "scope for research" were the reasons reported by cent per cent of the graduate students preferring the Horticulture discipline as the second best.

Genetics and Plant Breeding discipline was preferred as next best by all the students because of the reason "scope for employment" while 75% preferred because of "laboratory facilities".

All the students gave the reason "do not get admission in any other subject" while 75% reported the reasons "getting admission in preferred college" and "to prepare for competitive examinations", respectively for selecting Agril. Extension Education discipline as the next best.

Nearly 57.14% of the graduate students gave the reason "scope for employment" and 42.85% each "scope for research" and "interest created in the subject by the UG teachers" for preferring Agril. Economics.

The discipline Agril. Microbiology was preferred second by 54.54% of the graduate students because of "interest in the subject" and by 45.45% because of "scholarship facility".

"To prepare for competitive examinations" was the main reason given by 80% of the graduate students for preferring Crop Physiology as the second best.

50 per cent of the graduate students quoted the reasons "interest created in the subject by UG teachers", "scholarship facilities" and "Competency of faculty" and "to prepare for competitive examinations" for choosing Soil Science and Agril. Chemistry as the next best.

A similar trend of different reasons given by different percentage of graduate students for preferring subjects like Agril. Entomology, Agribusiness Management, Plant Biotechnology, Textiles and Clothing, Home Science Extension Education, Human Development, Food and Nutrition, Family Resource Management can be observed from the data in Table 3.

On the whole, Tables 2 and 3 do not give any picture of the strong reasons why a particular subject is preferred as first or second preference for specialization by graduate applicants. Hence, a further detailed analysis of reasons is essential to bring out those factors which actually drive a student to prefer a particular subject.

References

Arya S. 1995 Agricultural Education in India, *University News*, 33(33) Aug 14, Pp. 1-7

Halikatti, S.V. and Sambrani, R.M 1997 Job and subject preferences for Postgraduate studies among Agricultural Graduates — *Indian Psychological Review*. 48(2) Pp. 79-83.

Sundaraswamy, B Manjunath, L. Angadi, J.G. and Yadav, VS 1997 Attitude of B.Sc. (Agri) students towards Agriculture. *Journal of Extn. Edn* Vol 8(5) Pp 1572-1573.

Table 1 : Number of applicants for various PG programmes during 1997-98.

S.No.	*Name of the department*	*No. of applicants for Master's degree*			
		I Preference		*II Preference*	
		Freq	*Rank*	*Freq.*	*Rank*
1	2	3	4	5	6
A.	**Agricultural**				
1.	Agricultural Economics (AEC)	14 (4.86)		10 (2.81)	
2.	Agribusiness Management (ABM)	3 (1 04)		17 (4.77)	
3.	Agricultural Entomology (AET)	20 (6.94)	V	32 (11.47)	II

1	2	3	4	5	6
4.	Agril. Extn. Education (AEX)	4 (1.39)		6 (2.15)	
5.	Agricultural Microbiology (AMB)	10 (3.47)		23 (8.24)	
6.	Agronomy (AGR)	48 (16.62)	III	41 (14.69)	I
7.	Crop Physiology (CPH)	10 (3.47)		15 (5.38)	
8.	Genetics & Plant Breeding (GPB)	51 (17.71)	II	11 (3.94)	
9.	Horticulture (HRT)	67 (23.26)	I	21 (7.53)	V
10.	Plant Biotechnology (PBT)	10 (3.47)		16 (5.73)	
11.	Plant Pathology (PAT)	15 (5.21)		32 (11.47)	II
12.	Soil Science and Agril. Chemistry (SAC)	10 (3.47)		21 (7.53)	V
13.	Sericulture (SER)	2 (0.69)		2 (0.72)	
14.	Seed Science and Technology (SST)	23 (7.99)	IV	31 (11.11)	III
15.	Agril. Statistics (AST)	1 (0.35)		1 (0.36)	
B.	**Home Science**				
16.	Foods and Nutrition (FAN)	11 (5.00)		3 (11.54)	
17.	Family Resource Management (FRM)	2 (9.09)		8 (30.77)	
18.	Human Development (HDV)	5 (22.73)		10 (38.46)	
19.	Home Science Extension Education (HEE)	3 (13.64)		4 (15.38)	
20.	Textiles and Clothing (TCL)	1 (4.55)		1 (3.85)	
C.	**Forestry**				
21.	Forest Biology & Tree Improvement (FBT)	—		15 (93.75)	
22.	Silviculture & Agro Forestry (SAF)	15 (100)		1 (6.25)	
23.	Irrigation & Drainage Engineering (IDE)	5 (83.33)		1 (16.67)	
D.	**Agril. Engineering**				
24.	Farm Power & Agro Energy (FPE)	1 (16.67)		5 (83.33)	
E.	**Veterinary**				
25.	Veterinary Anatomy and Histology (VAH)	1 (3.57)		3 (10.34)	
26.	Animal Reproduction, Gynaecology and Obstetrics (VRG)	9 (32.14)		6 (20.69)	
27.	Veterinary Animal Nutrition (VAN)	3 (10.71)		2 (6.90)	
28.	Veterinary Microbiology (VMC)	4 (14.29)		5 (17.24)	
29.	Veterinary Pathology (VPT)	9 (32.14)		8 (27.59)	
30.	Veterinary Surgery and Radiology (VSR)	2 (7.14)		5 (17.24)	
	Total	365		356	

Table 2 : Distribution of the students according to reasons given for their first preference

	Reasons	*Total* (*n*=116)	*PAT* (*n*=9)	*AGR* (*n*=15)	*SST* (*n*=8)	*HRT* (*n*=22)	*GPB* (*n*=14)	*AEX* (*n*=4)	*AEC* (*n*=4)	*AMB* (*n*=4)	*CPH* (*n*=3)	*SAC* (*n*=2)	*AET* (*n*=4)	*ABM* (*n*=2)	*PBT* (*n*=1)	*TCL* (*n*=7)	*HEE* (*n*=2)	*HDV* (*n*=4)	*FAN* (*n*=4)	*FRM* (*n*=2)	*FBT* (*n*=1)	*M.TECH* (*n*=1)
1.	Interest in the subject	92.24	100.00	86.66	62.50	95.45	85.71	85.71	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
2.	Scope for employment	62.93	55.55	73.33	37.50	72.72	78.57	57.14	50.00	50.00	33.33	50.00	75.00	50.00	100.00	42.85	100.00	100.00	75.00	—	—	—
3.	Scope for research/growth	58.62	55.55	86.66	12.50	59.09	71.42	57.14	75.00	75.00	66.66	100.00	75.00	—	100.00	42.85	100.00	—	75.00	—	—	100.00
4.	Interest created in the subject by UG teachers	62.93	66.66	66.66	62.50	50.00	71.42	42.85	50.00	100.00	33.33	100.00	75.00	—	100.00	100.00	50.00	75.00	100.00	—	—	100.00
5	Scholarship/fellowship facilities	20.68	33.33	20.00	—	9.09	28.57	14.28	—	50.00	100.00	75.00	50.00	50.00	—	14.28	50.00	25.00	—	—	—	100.00
6	Getting admission in preferred college	35.34	33.33	46.66	37.50	27.27	50.00	28.57	25.00	50.00	33.33	50.00	50.00	100.00	—	14.28	—	—	50.00	—	—	100.00
7.	Competence of the faculties	37.93	22.22	53.33	37.50	63.63	35.71	14.28	100.00	25.00	—	50.00	—	—	—	14.28	—	25.00	75.00	—	100.00	—
8	Laboratory/Other facilities	38.79	44.44	66.66	25.00	40.90	35.71	—	25.00	50.00	33.33	50.00	75.00	—	—	42.85	50.00	—	75.00	—	—	—
9	Do not get admission in any other subject	8.62	11.11	6.66	12.50	4.54	7.14	28.57	25.00	—	33.33	—	—	—	—	—	—	25.00	—	—	—	—
10.	Just to spend time in the University	4.31	—	—	—	18.18	—	—	—	—	—	—	25.00	—	—	—	—	—	—	—	—	—
11.	To prepare for competitive exams	23.27	11.11	33.33	12.50	9.09	35.71	14.28	—	25.00	66.66	50.00	25.00	50.00	—	14.28	50.00	—	75.00	—	100.00	—

Table 3 : Distribution of the students according to reasons given for their second preference

	Reasons	*Total* (*n*=103)	*PAT* (*n*=8)	*AGR* (*n*=9)	*SST* (*n*=8)	*HRT* (*n*=3)	*GPB* (*n*=4)	*AEX* (*n*=4)	*AEC* (*n*=7)	*AMB* (*n*=11)	*CPH* (*n*=3)	*SAC* (*n*=4)	*AET* (*n*=8)	*ABM* (*n*=6)	*PBT* (*n*=4)	*TCL* (*n*=2)	*HEE* (*n*=1)	*HDV* (*n*=4)	*FAN* (*n*=3)	*FRM* (*n*=7)	*FBT* (*n*=1)	*AST* (*n*=1)	*SER* (*n*=2)
1.	Interest in the subject	34.85	12.50	55.55	33.33	33.33	50.00	25.00	28.57	54.54	40.00	25.00	25.00	33.00	50.00	100.00	—	—	—	28.57	100.00	—	50.00
2.	Scope for employment	43.68	12.50	66.66	77.77	100.00	100.00	25.00	57.14	18.18	—	—	75.00	50.00	25.00	—	—	25.00	66.66	57.14	—	—	—
3.	Scope for research/growth	32.03	25.00	55.55	33.33	100.00	50.00	—	42.85	27.27	—	25.00	62.50	33.33	50.00	50.00	100.00	—	—	—	—	—	—
4.	Interest created in the subject by UG teachers	41.74	37.50	66.66	22.22	33.33	50.00	50.00	42.85	36.36	—	50.00	75.00	33.33	50.00	50.00	—	—	66.66	42.85	—	—	100.00
5.	Scholarship/fellowship facilities	41.74	62.50	22.22	33.33	—	—	50.00	28.57	45.45	20.00	50.00	50.00	50.00	25.00	—	—	25.00	—	14.28	—	—	50.00
6.	Getting admission in preferred college	26.21	75.00	22.22	44.44	—	25.00	75.00	28.57	18.18	40.00	—	25.00	16.66	25.00	—	—	—	—	—	—	—	50.00
7.	Competence of the faculties	18.44	37.50	11.11	33.33	33.33	50.00	25.00	14.28	9.09	—	50.00	25.00	16.66	—	—	—	—	—	—	—	—	50.00
8.	Laboratory/Other facilities	24.27	—	33.33	44.44	—	75.00	—	14.28	27.27	—	—	62.50	33.33	25.00	50.00	—	—	66.66	—	—	—	—
9.	Do not get admission in any other subject	23.30	12.50	11.11	55.55	—	25.00	100.00	28.57	27.27	40.00	—	12.50	—	25.00	—	—	—	—	28.57	—	—	50.00
10.	Just to spend time in the University	23.30	25.00	11.11	22.22	—	—	50.00	14.28	18.18	40.00	—	12.50	—	25.00	—	—	—	—	—	—	—	—
11.	To prepare for competitive exams	28.15	12.50	33.33	33.33	33.33	50.00	75.00	28.57	9.09	80.00	50.00	12.50	33.33	25.00	—	—	—	33.33	—	—	100.00	50.00

Promotion of Population Education at University Level

Bal Prabhakar Singh*

The population of India is second largest in the world. About 16 per cent of the world's population is in India, but the country accounts for only 2.42% of the total world area, 3.28 million square km. out of total world area of 135.79 million square km. The absolute addition of the population, during the decade 1981-91 is more than the total population of Japan. The density of population in India is 267 persons per square km. in 1991 as against 216 in 1981. The Registrar General of India has only recently stated that population figure would stand at 101 crore by 2000 A.D.

The country is indeed on the verge of Malthusian disaster but the nation is by and large complacent or ignorant about it. It is not only our illiterate masses who need population education urgently, but also the educated people who require the relevant population education immediately because most of our educated people do not have correct and adequate knowledge about the nation's population problems and related issues.

In the world there are only about a dozen countries, whose poverty ratio is higher than India. In terms of human development index 1996 ranks, there are 134 countries which are having better performance than us. The population of India has been growing in the past with an average of about 2 per cent per annum, but in the context of the poverty and the large size, 2 per cent growth rate is alarming and in terms of absolute number (260 million) the picture is frightening. We have 320.4 million people, below the poverty line and 187 million undeveloped. The linkage between poverty, illiteracy and population explosion has not been given adequate attention. Despite the massive allocation of resources we have not been able to generate people's movement for controlling population.

UNFPA is entering the fifth cycle of support the government of India population programme 1997 to 2001. A new phase of population education in the adult literacy programme has been started from the year 1997. In this connection, it is very important that every university with the help of teachers and students gets a better understanding of achievements and constraints in interacting population education into the adult literacy programme.

Currently in India while about 25 lakh people die in a year, about 275 lakh children are born, so out of these newly born, 25 lakh make good for the 25 lakh deaths and balance 250 lakh are additional and therefore the need to open at least about 90,000 new primary schools per year. But according to the government data the number of new primary schools being opened is only 6,000 per year. [The number of primary schools increased from 5.51 lakhs in 1989-90 to 5.81 lakh in 1994-95.] So unless we check the inflow of 250 lakh *"additional"* illiteracy cannot be eradicated from India.

The universities through the academic staff colleges, population education resource centres, distance education courses through Adult Continuing Education department and with the help of N.S.S. must provide the training/orientation to teachers of all levels, NGOs and Panchayatiraj workers. The chapters on AIDS, sexuality and population should be integrated in curriculum at undergraduate and postgraduate levels. Every university should start publishing a journal/newsletter on population education and ensure continuous updating of information and materials, source books, manuals and their transmission to the university network members. The Universities should also arrange short term courses on population and facilitate exchange of expertise among the universities.

Introducing Panchayatiraj system, greater responsibility will be shared by members of Panchayats and specially elected women representatives in implementing population education and other development schemes. For orientation and training of Panchayatiraj functionaries, the university can organise programmes, so that they may develop adequate capabilities for implementing and overseeing the population education programmes alongwith literacy promotion activities.

University system can start developing strong networking with NGOs working in the field of population counselling services with the help of Adult, Continuing Education and Extension department. They can prepare pool of resource persons, develop networking with NSS and other social and cultural organisations. College and school level teachers are being regularly

---

Senior Lecturer/Project Officer, Deptt. of Adult & Continuing Education, Extension and Field Outreach, Chhatrapati Shahu Ji Maharaj University, Kanpur-208 024.

oriented in population education. The training programmes for youth workers, students, volunteers, population education club members, Anganwadi workers, community and mahila mandal workers, adult education instructors can be organised by the departments of Adult, Continuing Education and Extension. The departments can also make a directory of training institutions and persons involved in the field of population education and research.

Adolescence Population Education Programme

In India, millions of adolescents live and work on the street and thus are vulnerable. Sexual relationship begins in adolescence and unprotected sexual relations increase risks of unwanted pregnancy, early child birth, unsafe abortions, AIDS, tobacco, alcohol, drugs are becoming widespread. These attract adolescents who end up as addicts. As a result of lack of population education and access to contraceptives adolescents are most vulnerable to sexual abuse.

UNESCO definition of Adolescence Education & its Components are[1]

[1] *Physico prospects*
  (a) Anatomy and physiology of the reproductive system.
  (b) Physical, emotional and psychological change during puberty.
  (c) Conception, pregnancy and birth.

[2] *Sexual behaviour*
  (a) Sex drive or sexual feelings in adolescence.
  (b) Teenage pregnancies.
  (c) Sex roles — masculinity and femininity.
  (d) Sexually transmitted diseases.

The way to overcome this impediment is through giving population education to the higher secondary and college students. They must be made fully aware of the gravity and seriousness of the problem and also its adverse effects on their own present and future lives. Make population control a mass movement.

The following measures will prove to be helpful in this regard :

- All the examinations conducted by universities, [both written and viva-voce] including the interview for any admission should include at least 5 to 10% of questions from the topic of population education.
- The universities should provide counselling service for the expansion of the population education programme and integrate the population education B.Ed./M.Ed. courses. Expansion of Population Education Clubs.
- The universities can also start foundation courses on population at the undergraduate level and can make efforts for strengthening Population Education Research Centres and other population education research activities, with the help of university students community.
- Adult, Continuing Education and Extension departments of the universities can start training and orientation of the academic as well field functionaries and can promote research, evaluation, monitoring, curriculum materials for the stage of post-literacy and continuing education centres.
- It is also desirable to involve public minded bodies like Lions, Rotaries, Federations and Chamber of Trade and Industries viz. FICCI, CII etc in implementing and monitoring the various population education programmes.
- The universities can conduct surveys for evaluating the changes observed in the society regarding population education with the help of students and teachers. In case of adolescence education, preparing a pre-test plan for evaluating the mental make up of the adolescents towards the dangers of population/knowledge of population control, followed by a post-test to ascertain the receptivity of adolescents to developing their consciousness towards

ACHARYA N.G.RANGA
AGRICULTURAL UNIVERSITY
ADMINISTRATIVE OFFICE
RAJENDRANAGAR · HYDERABAD - 500030

CORRIGENDUM TO
ADVT. NO.1/ RC/ 98, Dt. 10-11-1998

1. The following may be added to B. Faculty of Agriculture, Associate Professors & equivalent : (11) Agricultural Microbiology & Bio-energy -4 (OC- Temp).

2. All posts in item D. Faculty of Home Science are reserved for women.

3. The item F. Assistant Librarians - 4 may be read as F. Assistant Librarians - 4 (O-2, BW-1, STW-1).

4. G.Documentation Officer- 1 (Rs. 2200-4000 UGC) may be added after the item F.

5. Applications received in response to the advertisement No.1/RC/97, dt. 6-1-1997 will not be considered.

Dt. 16-11-1998 **V. PRABHAKAR RAO**
REGISTRAR

the dangers of unprotected sexual relations and population.

- Efforts should be made to strengthen Adult, Continuing Education and Extension departments of the universities and some other departments, where population education is included and imparted. It will be unrealistic to expect establishment of separate departments of population education at this stage.
- Ways should be found through which students graduating in other departments are also encouraged to offer courses in population education by enrolling in the departments which offer such courses. This will promote interdisciplinary acquirement of knowledge and learning of individuals.
- At university level, research programmes on population related issues, not only demographic research, but also research by sociologists, economists, political scientist and other specialists of various fields be encouraged.
- Specific attention should be paid to utilization of research. Research findings should be used not only by the planners and administrators but also be utilized by teachers in preparing teaching material for school children and for teacher training.

The department of Adult, Continuing Education and Extension of the university can enrich the theoretical knowledge regarding population education for which it can organise lectures related with social, economic, political, biological, physical, chemical, moral and religious aspects of population.

The Adult, Continuing Education and Extension department of the university can act as a coordinator, facilitator and catalytic agent by developing a system of networking in collaboration with other educational and technical institutions, development departments, welfare agencies, employers and workers organisations, voluntary agencies, and economic enterprises etc.

The crisis is real and the time is running out fast. Let us hope the authorities will give a serious consideration to the proposed idea at this juncture. But will they?

Notes & References

1 Literacy of Population Newsletter, April, 1997, No. 6-8, page-5, by India Adult Education Association.

भौतिक अनुसंधान प्रयोगशाला
(अंतरिक्ष विभाग की युनिट, भारत सरकार
नवरंगपुरा, अहमदाबाद-380 009, भारत
तार : "रिसर्च" फेक्स : (91)-079-6560502
टेलेक्स : 0121-6397 दूरभाष : 462129

PHYSICAL RESEARCH LABORATORY
(A UNIT OF DEPT. OF SPACE, GOVT. OF INDIA)
NAVRANGPURA, AHMEDABAD-380 009, INDIA.
CABLE : "RESEARCH" FAX : (91)-079-6560502
TELEX : 0121-6397 TELEPHONE : 462129

(Advt. No 11/98)

The Physical Research Laboratory is a premier research institute of India carrying out front line research in Theoretical Physics, Aeronomy, Earth Sciences and Solar System Studies, Computational Physics, Non-linear Dynamics and Statistical Mechanics, Astronomy and Astrophysics, Laser Physics and Quantum Optics and Solar Physics. The Laboratory has state of the art experimental and computing facilities. The Laboratory invites applications for Faculty/ PDF and visiting positions, appointments for which will be made commensurate with qualifications, research experience and age of the candidate. For more details see **http://www.prl.ernet.in** under "opportunities" or e-mail to Head, Academic Services on **sharma@prl.ernet.in**

The Dangerous Fault Line

Prof. Brenda M. Gourley, Vice-Chancellor, University of Natal, Durban (South Africa), delivered the convocation address at Visva Bharati, Santiniketan. She said," A lack of real integrity in the conduct of business and public life has become so much the way of modern transactions that I may well sound naive even to raise it as an ethical issue. Yet I must. I think much of our world's suffering seeps or explodes from the dangerous fault line that is the cleft between public virtue and private vice or public vice and private virtue. In other words, from a lack of integrity or wholeness. Excerpts

It seems to me that Tagore, more than the founders of just about any university that I know, understood the fundamental concept of a university — not just a community of scholars but an international community of scholars. For Tagore, with all his abundant talent, was first and foremost a visionary. "I have founded Visva-Bharati," he said, "as a school in which men of different civilisations and traditions may learn to live together. You may think it is a very small place in which to begin such a huge task. The smallness of the beginning does not frighten me. All great ideas have to be born, like men, as very small babies. Visva-Bharati is a big idea." (*Sykes*, page 82) I would suggest to you that you also owe it to the memory of your founder that you understand what he hoped to achieve here and carry it into your lives as the leaders and custodians of our future. What does that future hold and what role may you play?

A saying attributed to Confucius is "may you live in interesting times". Indeed we are privileged to do so. We all understand, however, that interesting times are perforce difficult ones and the reason that the sages wish them upon us is not that we may be entertained by them but that we should be challenged by them.

I come from a country which has only recently been freed from the shackles of apartheid and all its attendant evils. Would apartheid have lived and thrived if the leaders of my country had been educated to see the world as Tagore, and indeed other visionaries such as Mahatma Gandhi, saw it? As we listen and absorb the horrors being related to our Truth and Reconciliation Commission we recoil at what has happened much as ordinary German citizens recoiled when the stark truths of the Nazi death camps were revealed to them. How do these things happen where people are supposedly educated and appear to embrace civilised values?

I have my own theory about how it has happened — in the West at least — and I share it with you in the hope that your lives will be influenced by the picture of a civilisation which has essentially lost its soul, its moral compass, and become so dominated by material things that spiritual values are gone. This is no small matter as we approach another millennium with many of the problems of the world no closer to solution than they ever were and indeed much more urgent than they ever were. I also share it with you because I perceive that perhaps, here in India, you stand a better chance than we in the West. India produced one of the greatest men the world has seen, Mahatma Gandhi, a man who Nehru described as someone who made "this country, during the last thirty years or more (of his life), attain the heights of sacrifice which in that particular domain have never been equalled elsewhere". (*The World's Great Speeches*, page 620) He was also a man who participated in his own unique way to the struggle against apartheid in South Africa.

Let me share with you some of the South African experience. In his 1994 Inaugural Address, President Mandela committed his government "to create a people-centred society of liberty (which) binds us to the pursuit of the goals of freedom from want, freedom from deprivation, freedom from ignorance, freedom from suppression and freedom from fear."

This was a difficult enough task in itself but consider the environment, both national and international, in which it has to be achieved. The Club of Rome's report entitled *The First Global Revolution* describes our world as : "A small planet which we seem hell-bent to destroy, beset with conflicts, in an ideological and political vacuum, faced with problems of global dimensions which fading nation states are impotent to solve, with immense scientific and technological possibilities for the improvement of the human condition, rich in knowledge but poor in wisdom... searching for the keys to survival and sustainability". I would like to emphasise the words 'rich in knowledge but poor in wisdom' for they allude to the choices that will have to be made and the striving for wisdom that is so important.

Last year the United Nations Development Program (UNDP) released the results of a study showing that in the last fifteen years the disparities between rich and poor, haves and have-nots, *have not* been reduced. They have, in fact, increased. James Speth from the United Nations is quoted as saying "if present trends continue, economic disparities between industrial and developing nations will move from inequitable to inhuman". (*Time*, July 29, p. 13) It is no coincidence that these same fifteen years have also seen massive changes in communication and other technologies. Whatever technology has done for some of us, it has not uplifted the lives of most of us. Nothing in our present experience suggests that this will change.

We look out on a world where, apart from the glory and beauty of nature, nature itself (with earthquakes, floods and other disasters) conspires to add misery to a life which includes civil war, poverty, AIDS, the effects of overpopulation, famine, unemployment, despair, the environment threatened (no more evident than in Indonesia and its neighbours enveloped in smoke), an education system in disorder, massive illiteracy and ignorance; more than ever we understand the fragility of the world economy (with the dramatic collapse of some Eastern markets and the domino effect on others), the threat of nuclear annihilation, the fanaticism of religious groups and the intolerance that goes with it.

Ordinary people see all these things and well may they wonder what it is that universities and those that learn there have occupied themselves with thus far. They may imagine that in the research laboratories, in the classrooms, in the quiet uncorrupted halls of academe, there are scholars who reflect on these things, who encourage their students to reflect on these things, who need no reminder from us that answers are urgently sought and, in the scheme of life, as they have indeed demonstrated in quite spectacular ways from time to time in the past, will come upon such answers. Is their faith misplaced?

Universities describe themselves as 'communities of scholar' and how grotesque it would seem if those scholars and those that graduate from such communities did not play their part in fulfilling the historic mission that Mandela describes, a mission which will remain unfulfilled as long as ordinary people all over the world (not just South Africa) suffer a lack of concern, though not a want of knowledge, about their plight. Again I emphasise the words 'a lack of concern... not a want of knowledge' again highlighting choices that have to be made : choices about power, greed, borders and sharing resources.

It is quite clear that the great issues of our time, issues involving survival and sustainability, issues about closing the gap between the haves and the have-nots, are going to require choices, choices about sharing, choices that ought to be made on moral or ethical grounds of one sort or another.

President Mandela reporting back to the annual conference of the African National Congress last month (16 December 1997) remarked that "if we have learnt nothing else during these past three years, we have grown to appreciate the extent of the corrosion of the moral fibre of our society....." He pointed to the complexity of the task of achieving a spiritual as opposed to the material rebirth as a "central and inalienable part of the reconstruction and development of our country". Without such a rebirth, he maintained, and I believe he is absolutely correct in this belief, we will condemn ourselves forever to being a land where there will always be chasms between the rich and poor, indeed the same chasms that exist elsewhere in the world.

It is not only people with the moral stature of Mandela who are concerned about the state of modern society. Even business leaders feel compelled to confess that there is something wrong with the present state of affairs. George Soros is one example among several who has made this observation about society in general : "Unsure of what they stand for, people increasingly rely on money as the criterion of value. What is more expensive is considered better. The value of a work of art can be judged by the prices it fetches. People deserve respect and admiration because they are rich. What used to be a medium of exchange has usurped the place of fundamental values, reversing the relationship postulated by economic theory. What used to be professions have turned into businesses. The cult of success has replaced a belief in principles. Society has lost its anchor." (*Atlantic Monthly*, February 1997) Soros might well have been basing his beliefs on Western paradigms and I would not presume to pronounce on business practices in a country with which I am not deeply familiar but I would hazard a guess that much of what he says relates to a world wide situation.

What organised business has to say is by no means trivial if we look at the role of business in the creation of a global society and the effect of poor business practices on our global environment. Companies have accumulated enormous wealth, in many cases larger than the combined wealth of entire countries. "Today five companies control more than 50 per cent of the global market in branches such as the automotive industry, aerospace, electricity and electronics. Five corporations control more than 40 per cent of the global market in oil, personal computers and the media." (Swedish Government minister, Pierre Schorri — quoted in Mandela's report to the ANC) Business itself is beginning to recognise that the health of the planet and the quality of life of its people, the infrastructure on which it relies to do business, from energy to transportation to water supply has become so complex, and so intertwined, that its vulnerability has increased exponentially and we are all at risk.

And so the ethics of living and making choices at this time in the history of our world are multiple indeed. They do affect every facet of our lives. The Club of Rome Report talks about : "the ethics of nature, imposed by global environmental issues; the ethics of life, exemplified by genetic engineering; the ethics of development, resulting from the increasingly unbearable gap between the rich and the poor; the ethics of money, because it is divorced from the economic realities and dominated the ambitions of too many individuals; the ethics of images, which should rule over the media and modulate the influence of television in excessive dramatization of the image; and (perhaps the most important of all) the ethics of solidarity, dictated by the fact the dimension of the problems posed to humankind today requires co-operation between human beings as a condition of their survival." (*Club of Rome Report*, pages 213-214)

The extraordinary thing is that Tagore lived at a time when we did not know our planet was at risk, when our scientific knowledge was not so sophisticated as to be able to warn us about ozone layers, global warmings and suchlike. We were not dominated by computers. AIDS was not yet a reality and the population of the world was nothing like the present levels. He did however see two major wars, he saw poverty (and prayed for "the strength never to disown the poor"), and he saw the reality that peace was the most important contributor to development, that understanding and tolerating different traditions and cultures was essential to that peace, and the integrity of the individual was as important (and he exemplified this in his life and writings), an integrity essential to the conduct of an ethical life. There was no doubt in his mind that a university is critically placed to nurture the ethical integrity that all of us find missing from our societal and environmental management. If universities nurture civic-minded citizens, who in addition to having an excellent grasp of professional requirements, will have a fine ability to discern that some beliefs, some ideas and some acts are ethically sounder than others and that it is possible to tell which are which and to try to act on that discerning, then perhaps the future is safe after all.

It would be pleasing to believe that all those here graduating should exemplify that elusive yet cardinal virtue — integrity. After all, you are graduating from a Univesity founded by a unique individual and in accordance with unique principles. Where better to look for graduates who understand that they are all, in a sense, the public's trustees? It was perhaps Tagore's greatest gift to you that he believed in your ability to rise to that challenge. He believed in you, in your ability to exercise "hospitality of the mind", to search for wisdom and fulfil your trusteeship.

A lack of real integrity in the conduct of business and public life has become so much the way of modern transactions that I may well sound naive even to raise it as an ethical issue. Yet I must. I think much of our world's suffering seeps or explodes from the dangerous fault line that is the cleft between public virtue and private vice or public vice and private virtue. In other words, from a lack of integrity or wholeness. Stephen L Carter, a Professor of Law at Yale University says that integrity requires three steps. The first is discerning what is right and wrong. The second is acting on what you have discerned (even at personal cost), and the third is saying openly that you are acting on your understanding of right from wrong.

He goes on to say "the word integrity comes from the same Latin root as integer and historically has been understood to carry much the same sense, the sense of wholeness : a person of integrity, like a whole number, is a whole person, a person somehow undivided. The word conveys not so much a single midedness as a completeness; not the frenzy of a fanatic who wants to remake the whole world in a single mould but the serenity of a person who is confident in the knowledge that he or she is living rightly."

Serenity is difficult to achieve in times as interesting and challenging as ours. Despite coming from South Africa, a country that has been dramatically riven by injustice and inequality, I can discern devastating patterns of discrimination even here in India — a country that has had a model Constitution for nearly 48 years. Wherever we are in the world we must be aware that we are living on an imperilled planet : one desperately in need of ethical and ecological healing.

I need not wish that you, our public trustees of our future, may live in interesting times. You do that already. Indeed you live in dangerous times. But I make a plea to you, as you take on your life's work in these most challenging of times, to aim for integrity. If you can find that in yourselves and your work, you will be making the best contribution that you can to the integrity of the planet and its healing. For integrity means that you cannot live without a sense of civic duty and commitment because you will have the discernment to see that you are not separate from what ails our public life.

All this rests on my belief that a university education such as yours does give you the ability to discern that some beliefs, some ideas and some acts are ethically sounder than others and you will act on that discerning. I hope that the public trust will be well-placed in all of you.

Ladies and gentlemen, we stand watching the dawn of a new tomorrow. You may well be alarmed by some of the things I have said here. I hope so. We need to pool all of our resources if we are going to meet the needs of our time. This is not a time for competition, for winners and losers, but rather a time for collaboration and reconciliation. This is not a time for the faint-hearted but for the courageous. This is a time to be thankful for the triumph of the human spirit and great people such as Tagore who pursue the truth, the advancement of knowledge, and the attainment of wisdom. They renew our faith, over and over again, in the capacity of the human mind and spirit.

I know no better way to end than by reciting one of Tagore's poems :

Where the mind is without fear and the head is held high
Where knowledge is free
Where the world has not been broken up into fragments
By narrow domestic walls
Where words come out from the depth of truth
Where tireless striving stretches its arms towards perfection
Where the clear stream of reason has not lost its way
Into the dreary desert sand of dead habit
Where the mind is led forward by thee
Into ever-widening thought and action
Into that heaven of freedom, my Father, let my country awake.
(*Gitanjali*, 35)

A HANDBOOK OF SCHEMES FOR TECHNICAL AND MANAGEMENT EDUCATION

Sita Ram Sharma

Technical and Management Education is one of the more significant components of Human Resource Development spectrum with great potential for adding value to products and services and for contributing to the national economy and improving quality of life of the people. In recognition of the importance of this sector, the successive Five Year Plans have placed great emphasis on the development of technical and management education.

The All India Council for Technical Education (AICTE) an apex body at the national level supported by its Regional Committees, Boards of Studies, has been entrusted with the responsibility of coordinated development of technical education and maintenance of prescribed standards.

The Book is a useful guide for researchers, universities and colleges and the scholars who want to benefit from the various schemes of the All India Council for Technical Education, Department of Science and Technology, Government of India and the Indian Council of Agricultural Research.

The All India Council for Technical Education is vested with the statutory authority for planning, formulation of norms and standards, accreditation, funding of priority areas, monitoring and evaluation, maintaining parity of certification and awards and ensuring co-ordinated and integrated development of technical and management studies.

This handbook highlights various schemes/programmes of the AICTE and other agencies which will prove of immense help for all technical institutions, diploma level institutions, polytechnics, pharmacy colleges and Universities.

1998

ISBN 81-7594-027-1 Hardback Rs. 700.00

Mail Your order today for Prompt supply.

M/s. SHYAM BOOK DISTRIBUTORS,
A-312, INDRA-VERMA COLONY,
NAHARI KA NAKA, SHASTRI NAGAR
P.B. No. 8, JAIPUR-302 016
PHONE : 0141-304 921
FAX : 0141-303 733

SPREA EET

Educatio India — 1

Number of Educational Institutions

All India

Type	*1961*	*1971*	*1981*	*1986*	*1991*	*1995*	*1996*	*1997*
1. Pre-Primary Schools	1,909	4,174	10,281	13,951	15,877	41,487	38,510	38,553
2. Primary/Junior Basic Schools	330,399	408,378	494,503	528,872	560,935	581,305	590,421	598,354
3. Middle/Senior Basic Schools	49,663	90,621	118,555	134,846	151,456	163,605	171,216	176,772
4. High/Higher Secondary Schools	17,257	36,738	51,006	65,837	79,796	92,252	94,648	98,172
5. Universities/Institutions Deemed to be Universities/ Institutions of National Importance	45	100	132	149	184	219	226	228
6. Degree Standard and above General Educational Institutions	967	2,285	3,421	4,067	4,862	6,089	6,569	6,759
7. Degree Standard and above Professional and Techincal Institutions for :								
(a) Agriculture and Forestry	35	59	61	70	80+	NA	NA	NA
(b) Engineering, Technology and Architecture	111	134	171	248	351	NA	NA	NA
(c) Medicine*	133	179	249	288	346@	NA	NA	NA
(d) Veterinary Science	17	22	22	22	27+	NA	NA	NA
(e) Teacher's Training	147	274	341	432	474	586	633	697
8. Below Degree Level Professional/Vocational and Technical Institutions	4,145	4,401	4,808	5,381	5,739	NA	NA	NA

+ Relates to the Year 1988 (IAMR — Working Paper)

@ DGHS — Health Information of India — 1993

* Medicine includes Allopathy, Homoeopathy, Ayurveda and Unani.

Source : Manpower Profile, India, Year Book 1998, Institute of Applied Manpower Research, New Delhi

Enrolment by Stages of Education

(Thousands)

All India

Stage	*1961*	*1971*	*1981*	*1986*	*1991*	*1995*	*1996*	*1997*
General Education								
Pre-Primary	179	358	1158	1426	1635	2116	2139	2382
Primary	33631	57045	73774	87441	97375	109044	109734	110394
Middle	7479	13315	20724	27310	34026	40288	41014	41065
High/Higher Secondary	3463	6580	8807	12173	14365	16327	16780	17862
Post-Matric but below Degree level*	571	1041	3079	4336	6358	7811	8109	9175
Degree and above	428	1647	2320	3159	3672	4311	5025	5373
Professional/Tech./ Vocational Education								
School level	494	422	524	655	NA	NA	NA	NA
Post-Matric but below Degree level	—	448	519	540	NA	NA	NA	NA
Degree and above	209	378	623	743	901	1059	NA	NA
(a) Engineering/Technology/ Architecture@	48	93	130	197	241	291	317	328
(b) Medicine**	40	91	121	138	179	207	NA	NA
(c) Agriculture/ Forestry	17	25	40	43	55	64	NA	NA
(d) Education	47	59	75	88	92	109	122	116
(e) Veterinary Science	6	6	7	9	13	15	NA	NA
(f) Others	51	104	250	268	32	373	NA	NA

Includes 10+2/Intermediate/Junior Colleges/pre-university.

Medicine includes Allopathy, Homoeopathy, Ayurveda and Unani.

The enrolment in Engineering/Technology does not cover all the institutions.

CAMPUS NEWS

Swarna Jayanti Awards

Prime Minister Mr. Atal Behari Vajpayee promised a larger role in the country's development for scientists and engineers and said the government was determined to stop technological brain drain.

Giving away the Swarna Jayanti awards for 1997-98 at a function held in New Delhi recently, the prime minister was critical of the cumbersome bureaucratic procedures that stood in the way of rapid growth of science and technology. These would have to be removed, he said.

"Science and technology should be a major vehicle to improve the economy," he said, adding that low-cost and affordable technologies, suitable to Indian conditions, could go a long way in alleviating the suffering of millions.

The government, he said, recognized the fact that science and technology are powerful tools in socio-economic development and long-term technological competence and international competitiveness could only come from a strong research foundation.

Union Minister for Human Resource Development and Science and Technology Dr. Murli Manohar Joshi said, "We in our country have achieved excellence in different areas such as academics, industrial development, technology development and management. The need is to achieve an integrated national excellence."

The Swarna Jayanti fellowships were given to 11 scientists : Dr. Santanu Bhattacharya, Department of Organic Chemistry, Indian Institute of Scienec, Bangalore; Dr. P. P. Chakrabarti, Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur; Dr. Atul H. Chokshi, Department of Metallurgy, Indian Institute of Science, Bangalore; Professor D.V. Khakhar, Department of Chemical Engineering, Indian Institute of Technology, Mumbai; Dr. T.P. Radhakrishnan, School of Chemical Sciences, University of Hyderabad, Hyderabad; Dr. Mohit Randeria, Department of Theoretical Physics, Tata Institute of Fundamental Research, Mumbai; Dr. Madan Rao, Institute of Mathematical Scienecs, Chennai; Dr. V.K. Singh, Department of Chemistry, Indian Institute of Technology, Kanpur; Dr. Subrata Sinha, Department of Biochemistry, All India Institute of Medical Sciences, New Delhi; Professor Vasudevan Srinivas, School of Mathematics, Tata Institute of Fundamental Research, Mumbai; and Professor Jayant Udgoankar, Tata Institute of Fundamental Research, National Centre for Biological Sciences, Bangalore.

The awards, commemorating India's 50th anniversary of independence, will enable deserving young scientists to attain world class levels in science.

Open to scientists in the 30-40 year age group, the awards carry a five-year fellowship of Rs. 25,000 per month apart from a research grant for the purchase of equipment, manpower, supplies and consumables.

Orientation Programme at GRI

The Department of Applied Research, Gandhigram Rural Institute recently organised a two-day orientation cum extension programe at Chatrapatti and Kriyampatti Villages in Agaram Panchayat of Dindigul District. The Postgraduate students of Home Science Extension, Business Economics, Development Administration, Co-operation, Rural Sociology, Rural Development, Rural Project Management, Rural Industries and Management, M. Phil Scholars of Research and Development, Economics and the staff of the Department participated in the programme. The students were given orientation in field work by members of faculty and field surveys were conducted in both the villages. A pre-designed, field tested interview schedule was used to collect requisite data. The objectives of the survey were : (i) to find out the living standards of rural female workers; (ii) to identify the problems of rural female farm workers and non-farm workers; (iii) to find out the facilities available in the work spot; and (iv) to study the awareness of rural female workers about their rights and privileges.

The survey revealed that there were 276 households in Chatrapatti and Kriyampatti Villages and 113 female workers were identified. The sample consisted of both farm (86) and non-farm (27) workers. The non-farm workers were mostly employed in brick industry, coir industry and spinning mills.

The survey revealed that the majority of the female workers (96%) were not aware of their rights like Minimum Wage Act, minimum working hours etc. Some of them were of the opinion that even if they were aware of their rights, it was not possible to claim the privilege as they did not have the collective bargain power in the absence of labour forums. None of the female workers were found to be members of trade or labour unions. However, many of the workers were members of village Mather Sangam, which catered to the welfare programmes for the women and children.

It was suggested that the unemployed days of the female workers could be utilised profitably by giving them orientation and training in skills such as fruit processing, wire-knitting, pappad making, tailoring, etc. The social welfare organizations should help in eliminating problems and should take steps to improve the facilities to improve the standard of living of rural female workers. The empowerment of the female workers could be achieved once they were oriented regarding their rights and privileges and the means to achieve them through awareness camps or workers education programme by governmental and non-governmental organisations.

At the conclusion of the programme Dr. N. Markandan, Vice-chancellor of Gandhigram Rural Institute, emphasised the need to have Panchayat level planning committee to discuss and implement developmental programmes in the villages.

IGCAR Research Centre

A Rs. 10-crore research centre for conducting environmental studies is proposed to be set up at the Indira Gandhi Centre for Atomic Research at Kalapakam. This was announced at a seminar on "Safety of Reactors" (Kudankulam Project), by the Atomic Energy Regulatory Board (AERB) Chairman Mr. P. Rama Rao.

He said that Kalpakam was chosen for the new centre as it had all the facilities like the nuclear power station, the fast breeder reactor, Kalpakam Atomic Reactor and Kalpakam Atomic Reprocessing Plant (KARP), excepting mining.

Terming it as a safety research institute, Mr. Rao said that its function was not to overlap but a complementary one. The centre, he said, would be relevant to AERB activities to evolve, over a period, knowledge-based analysis. The collation and analysis, he contended, would be very valuable to AERB.

The seminar, however, went all out to project that the reactors (VVER) that would be set up in Kudankulam in Thirunelveli and alleviate fears of the Kudankulam people.

Mr. Y.S.R. Prasad, Chairman & Managing Director, Nuclear Power Corporation of India Limited said that the two pressure water reactors of 1,000 MW each (VVER) were the safest of reactors.

MD Varsity Convocation

The Union Home Minister, Mr. L.K. Advani, said that the education sector was fast becoming an arena of anarchic politics. He was delivering the convocation address at the seventh convocation of the Maharshi Dayanand University in Rohtak recently. He said that the polluted political atmosphere of the country was responsible for the exodus of the native talent. He said that time had come to got into the reasons as to why Indians excelling in the fields of medical science, computers, space science, technology and economics abroad could not do so while staying in the country.

He called upon educational administrators to create conducive atmosphere in their institutions so that educated Indians preferred to use their talent to serve the motherland instead of being tempted to fly abroad.

Mr. Advani categorically stated that India was the country that truly professed & preached the teachings of Swami Dayanand which considered the entire world to be one family and called for religious tolerance and peaceful coexistence of various countries.

He said that the "lack of will power" was hampering development of the education sector and for non fulfilment of the educational targets. He said that a country, where more than 40 per cent of the population was deprived of modern education, had not only to struggle to meet basic necessities of its populace but also strive hard to maintain its social and geographical integrity.

He gave a call to the youth of the country to prepare themselves to face the challenges of the contemporary world so as to fulfil the dreams of those freedom fighters, revolutionaries, patriots and nation builders who laid down their lives for the greater glory of this country.

Mr. Advani praised the contribution of Maharshi Dayanand after whose name this university has been named and said that this modern sage was responsible for initiating the national cultural renaissance and initating breaking off shackles of imperialism. Swami Dayanand worked tirelessly for the spread of knowledge of our religions, culture and civilisation as well as modern scientific education.

He said that Swami Dayanand advocated knowledge of Sanskrit so that common man could understand the Vedas.

But he propagated his basic teachings in Hindi by writing 'Satyarth Prakash'. Mr Advani said that as long Hindi was the "rashtra bhasha" it was acceptable throughout the country, but as soon as it was declared as the "national language" it became controversial.

He expressed the hope that the students getting degrees would step in the battle of life with the dream of building a new and resurgent India standing proud in the comity of nations in the coming century by using their talent for the country.

Mr. Advani said that political science should be taught to impart knowledge but there should be no place for party politics and indiscipline in the field of education.

The Governor and Chancellor of the University, Mr. Mahavir Parsad conferred Ph.D. degrees on 186 students. The Chief Minister, Mr. Bansi Lal presented gold medals to 53 toppers of 1998 annual examinations. He also released commemorative souvenir on this occasion. The degrees of postgraduate examinations were given away by the Vice-Chancellor, Mr. O.P. Kaushik.

Interviewing in Socio-Economic Surveys

The Institute of Applied Manpower Research proposes to organise a Training Programme on Interviewing Techniques in Socio-Economic Surveys on February 3-5, 1999 at New Delhi.

The basic objective of the programme is to provide an opportunity to the participants to analyse the conventional interviewing techniques and evolving scientific, innovative and judicious mechanisms and policies suited to the emerging environment and challenges.

The programme, inter alia, will cover Aims of Socio-Economic Surveys & Methods; Objective of Interview; Type of Interview; Perparation for Interview; Pretesting; Designing of Questionnaire; Establishing Rapport with Respondents; Communication Skills; Respondents' Motivation; Art of Listening; Selection and Training of Interviewers; and Avoidables in Interview.

The programme is meant for Senior and Middle Level Officers of Ministry/Departments of the Central Government, Public/Private Sector Undertakings and parastatal organisations engaged in conducting socio-economic surveys. It will be useful for persons engaged in research in various academic and research organisations.

Further details may be obtained from Dr. J.P. Saxena, Head (Training), Institute of Applied Manpower Research, Indraprastha Estate (Opp. Indira Gandhi Stadium), Mahatma Gandhi Marg, (Ring Road), New Delhi-110 002.

Seminar on Panini and Modern Semantics

The Department of Sanskrit, University of Calicut, Kerala, recently conducted a three-day National Seminar on Panini and Modern Semantics in collaboration with Sahitya Akademi. About 35 eminent scholars from various parts of India presented papers in the seminar.

Prof. K. Satchidanandan, Secretary, Sahitya Akademi, in his welcome address, said "Colonial imageries have staged a comeback through discourses of demination, turning culture and knowledge into marketable commodities. We will have to tell the West in no uncertain terms that we had a Bharthari centuries before you produced your Wiltgenstein, we had a Panini and a Patanjali when the forefathers of your Saussure and Derrida were savages in the forests. And this assertion of our tradition has to be accomplished by fresh enquiries, analyses and comparative insights lest it should sound a vain and uncritical faith in glorious past which is what revivalism is all about." Prof K.K.N. Kurup, Vice-Chancellor, Calicut University, who inaugurated the seminar, paid rich tributes to the linguistic tradition of ancient India as epitomised in Panini. Prof. Ramarajan Mukherjee, in his keynote address, pointed out how the problems related to language were relevant in the study of literature. Prof. K.P. Narayana Pisharoti, the eminent traditional scholar from Kerala, demonstrated the versatality of Paninian Grammar. Dr. C. Rajendran, Professor and Head of the Department of Sanskrit, and the co-host, outlined the perspectives of the seminar and its implications in updating Paninian studies.

The papers presented at the seminar included (i) Metalinguistic Problems in Panini; (ii) Semantic Problems of Number; (iii) Panini and Metaphor; (iv) Socio-Semantic Dimensions of Paninian Grammar; (v) Intention as a Semantic Condition in Panini; (vi) Semantic Problems in Number; (vii) Gender Description in Panini; (viii) Semantic Perspective on Secondary Suffixes; (ix) Semantic Perspective on Primary Suffixes; (x) Primary Suffixes — A Semantic Appraisal; (xi) Objects, Relations and Karakas; (xii) Semantic Conditions of Number; (xiii) Semantic Problem of Case Relation; (xiv) Panini and Computer; (xv) Semantic Conditions of Compounds;

(xvi) Semantics of Reduplication; (xvii) Lexical Perspectives in Ganapatha Description; (xviii) Semantics of the Genetive Case; (xix) A Semantic Perspective on Feminine Suffixes; (xx) Semantic Problems in the Computation of Paninian Rules; (xxi) Paninian Grammar and Orian Semantics; (xxii) Indeclinables — A Semantic Survey; (xxiii) Logical Problems in Karaka Structure; (xxiv) Semantic Problems in Structural Grammar; and (xxv) Panini and Vedic Grammar.

Seminar on Unity of Religions

The Research Foundation for Devotional Literary Studies of the Osmania University, recently organised a seminar on "Unity of Religions".

Inaugurating the seminar Dr. Hari Priya Rangarajan, First Lady of Andhra Pradesh, and Chairperson of the Red Cross Society, emphasised that understanding the different aspects of Religion was important in establishing the Unity of all Religions of the world. She analysed briefly the seven aspects of Religion i.e. the practical and ritualistic aspect, the experimental and emotional aspect, the narrative or mythical aspect,the doctrinal and philosophical aspect, the ethical aspect, the institutions of religions and society, and finally, the materialistic aspect of religion. She concluded by stating that religion was both human and divine, as service to humanity was service to God.

Prof. V. Ramkistayya, Vice-Chancellor, Osmania University, who presided, emanciated that the Centre for Devotional Literary Studies should develop into a forum for serious intellectual discussions by like-minded scholars. He assured it of the University's support.

Prof. M. Sivaramkrishna, in his keynote address, said that religious discourses had to be re-interpreted according to the changing perceptions. Prof. R.K. Pandey, Director of the Research Foundation emphasised the importance of the Seminar and said that Unity of Religion was necessary for the progress of the Humanity.

In the first session, the participants emphasised the influence of Religions; advocated the establishment of a Universal Religion; Religion should be experienced and not analysed threadbare in academic forums; and tolerance should be the base of all religions.

In the second session the impact of religion on society was discussed. The speakers said that Religion should include all aspects of human faith and belief; Religion, Society and spirituality should be integrated for any kind of evolution. Speakers in the third session spoke on the Bhakti and Sufi movements in India as a source of unification. They analysed the concept and development of sufism.

In the valadictory session, Prof. Gopal Krishnaji, Director, Institute of Public Enterprise, Hyderabad and Prof. M. Bhagwanth Rao, Registrar, Osmania University emphasised the need for spiritual values in the conduct of any aspect of life.

Buddhist Art Exhibition at BHU

An exhibition on Buddhist Art was recently organised by Bharat Kala Bhavan, Banaras Hindu University. The exhibited Buddhist material mainly consisted ranging from the 3rd century B.C. to the 20th century. It represents almost all schools of Buddhist art from different regions of India and to some extent the neighbouring countries like Nepal, Tibet, Bangladesh, Pakistan and Afganistan. The specimen include stone sculptures, metal sulptures, torracottas, seals-sealings, coins, palm leaves miniature paintings on paper and large paintings on cloth.

Inaugurating the exhibition the Vice Chancellor Professor Y.C. Simhadri said that the birth of Buddha was an event of extraordinary significance not only for India but for the entire humanity. He gave solace and compassion to the suffering people and inspired the posterity to follow his ideals in the land and abroad.

Describing the Buddhist art as apoch making Professor Simhadri said that it formed the prestigious part of Indian art. The phenomenon continues todate and the collection of Bharat Kala Bhavan presents a fairly good glimpses of development of Buddhist art through ages. Professor Simhadri also commended the efforts of Bharat Kala Bhavan in bringing out a guide book.

Hindi Chair at Bucharest Varsity

Bucharest University, the oldest in south-east Europe, is reported to have established a Hindi chair responding to a long-standing need in Romania where Rabindranath Tagore is a household name and the 'Bhagawad Gita' common knowledge.

The establishment of the 'Hindi chair', followed an agreement between Romania's Minister of Education, Mr. Andrei Magra, and the Indian Ambassador, Mr. Rajiv Dogra.

The Indian Council for Cultural Relations (ICCR) selected and sent a well-known professor of Hindi, Prof. Yatindra Tiwari, to head the Chair and 27 students for the three-year degree programme at the University.

Seminar on Women's Studies

Sri Sarada College of Education, Salem affiliated to Periyar University, conducted a one-day seminar on various aspects of Women's Studies. Twenty five papers on various aspects like Problems of Women, Atrocities on Women, Role and Responsibilities of Women in the economic development of the country, the importance of technology in the development of Women and Laws governing the rights and emancipation of women were presented and discussed. The important feature of the seminar was the presentation of research reports on Women Teachers' Awareness of Health Aspects; Emerging Women among Student Trainees; Adjustment and Occupational Stress of Women Teachers; and Role of Married Working Women.

Tributes to CV Raman

Renowned scientists and administrators of the country paid rich tributes to Nobel Laureate Prof. C.V. Raman on his 110th birth anniversary at a function organised at the Raman Research Institute in Bangalore recently. Founded by Prof. Raman himself, the institution is celebrating its golden jubilee year.

Prof. M.G.K. Menon, Deputy Chairman of the National Task Force on Information Technology and Software Development, recalled the scientific integrity and excellence of Prof. Raman. "He not only created an institution but also left behind his spirit" he said. "His vigorous service has left a lasting impression in the scientific community. Though he had to face many hurdles in life, he represents science at its best", Prof. Menon added.

Prof. G. Venkataraman, Vice-chancellor of the Sri Satya Sai Institute of Higher Learning, in his keynote address, expressed concern over the way science was heading in the nation contrary to the vision of Prof. Raman. He said Prof. Raman wanted the country to keep abreast of knowledge and technology and not think of importing it from abroad.

He said Prof. Raman spent a lot of time and grants to bring out scientific journals and books. But today, no scientist thought of giving scientific lectures or writing books that could help the future generation.

He regretted that the scientific community did not come out openly against technological embargoes imposed by the West against India.

Reading out excerpts from many of Prof Raman's speeches, Prof. Venkataraman brought out the life and times of Prof. Raman. He said that Prof. Raman built the institute using his personal savings. He had rejected grants provided by the government as he did not want to be tied up by any obligations, he added.

Former ISRO chairman Dr. S. Dhawan recalled Prof. Raman's love for nature and his fascination for optics. He also spoke on the contributions of Prof. Raman to the Indian Academy of Sciences. A 43-volume "Memoirs of the Raman Research Institute" containing the papers published from the Institute was released on the occasion.

Seminar on Environment

Singareni Collieries Women's Degree College, Kothagudem, proposes to organise a Seminar on Environment on December12-13, 1998. The theme of the seminar is Environment — Concerns & Strategies.

The objectives of the seminar are to create awareness among youth and illiterate men and women about the importance of a "clean and green" environment. It is essential not only to improve the environment but also sustain it for future generations. New methods must be followed in agriculture, afforestation programmes must be speeded up and new scientific approach with the help of bio-technology should be popularised to protect the environment.

The thrust areas include Environmental Awareness; Environmental protection — Afforestation; Environment — Population; Environment — Health; Environment — Impact Assessment; Environment — Monitoring in Mining areas and Industries; Environment — Pollution; Environment — Biotechnology; Environment — Agriculture; Environment — Women.

Further details may be obtained from Dr. J. Usha Kumari, Reader in Botany, Singareni Collieries Women's Degree College, Kothagudem-507 101, Khammam Dist., A.P.

TARANG - 98

The Association of Indian Universities, in collaboration with the Dept. of Youth Affairs & Sports, Ministry of H.R.D., Govt. of India, has launched Inter University Community Singing Festival to instil and inculcate in the youth a love for the motherland and develop an understanding amongst the youth about the rich cultural heritage of India.

The S.N.D.T. Women's University's Department of Students' Welfare recently hosted the West Zone Inter University Community Singing Festival 'TARANG'. 18 universities from the west zone participated in the festival.

The festival was inaugurated by the Minister of State for Education & Cultural Affairs Shri Anil Deshmukh.

Each team presented group song of 10 mts. duration consisting of two songs — one patriotic song and other folk song — with fervour and full of patriotic feelings and the folk songs were basically from their region.

The winners were : Mumbai University, Mumbai; S.N.D.T. Women' University, Mumbai; Indira Kala Sangeet Vishwavidyalaya, Khairagarh; Banasthali Vidhyapeeth, Rajasthan; Nagpur University, Nagpur.

At the valedictory function Shri Pramod Navalkar, Minister of Cultural Affairs and Eminent Ghazel singer Shri Jagjit Singh gave away the trophies to the winning and the participating teams. They appreciated the initiative taken by the AIU for promoting the integration amongst the youth through the propagation of cultural heritage.

News from Agricultural Universities

TNAU Introduces New Paddy Harvester

An indigenous 'paddy harvester', designed by the Tamil Nadu Agricultural University (TNAU), was introduced to the farmers of Madurai region at a training-cum-demonstration session organised recently by the Krishi Vigyan Kendra (KVK) of the Agricultural College and Research Centre.

The harvester is capable of covering two acres of land per day, with the assistance of two labourers, at a cost of Rs. 200 per acre. It can be operated with kerosene, with an efficiency of 750 ml per hour. The machine will harvest paddy in an area of one acre within three and a half to four hours.

Dr. A. Regupathy, Dean, Agricultural College and Research Institute, while addressing the farmers, stressed the utilisation of farm machinery at every critical crop operation as a step towards selective farm mechanisation, taking into consideration the prevailing scarcity of labour and timely operations.

He was confident that selective mechanisation would help the farmers have a richer harvest without any wastage of time. The farmers also need not depend on labourers and take extra risks. The TNAU paddy harvester, he said, had been designed keeping all the factors in mind and if properly used by the farmers would be of great help for them.

The Joint Director was of the view that such farmer-friendly machinery should find a permanent place in a village, along with tractors and power tillers. Mr. G. Chinnanchetty, Agricultural Engineer, said the harvester was ideally suited to small farms as it was easily transportable and operated comfortably in the corners of the field. The cost of the machinery, he said, was Rs. 30,000.

IGAU Kisan Mela

The Indira Gandhi Agricultural University (IGAU), Raipur, in collaboration with the Department of Agriculture, Madhya Pradesh organized a 'Kisan Mela'. Dr. Bhai Mahaveer, Governor of Madhya Pradesh, who was the chief guest, visited the experimental area of the university and appreciated the research work being carried out by different scientists. Dr. V.K. Patil, Vice-Chancellor, IGAU, emphasised the role of Horticulture in development of farmers status and advised them to take up different horticultural crops with the help of latest technology. He also insisted to adopt improved crop production technology for optimising the production.

A large number of farmers participated in the Mela and got an opportunity to observe the research work carried out by the scientists of the university. The concerned scientist explained in detail regarding rice varieties developed by the university like Mahamaya, Poornima, Shyamla etc. Since the inception of the university in 1987, the scientists have developed number of improved crop varieties resistant to pests and diseases. In case of agricultural implements a line sowing seedrill i.e., Indira Seedrill has been developed by the university and getting popularity among the farmers of this region.

On this occasion a Kisan Goshthi programme was also organized to resolve the problems of the cultivators by the scientists of this university. At this juncture an exhibition was arranged in which Govt./Private/NGOs participated to depict the updated agricultural technology.

News from UGC

Countrywide Classroom Programme

Between 8th and 14th December, 1998 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 9.30 to 10.00 a.m. every day except on Saturdays & Sundays. These programmes are also telecast on Doordarshan's National Network from 6.00 to 6.30 a.m. two days a week i.e. on Saturdays and Sundays. On DD2 International Programme will be shown at 11.00 to 12.00 hours on Saturdays only.

Hindi Programmes are being telecast on Mondays to Fridays from 6.00 to 6.30 a.m.

8.12.98
"Setting the Standards"
"Meitei Women in the Unorganised Sector"
9.12.98
"Ray of Light — Rehabilitation of Street Children"
10.12.98
"Question Time-91"
"A Spl prog. on Prof. Amartya Sen (Nobel Prize Winner)"
11.12.98
"Bibliofile : A Fair with Books"
"They can also do it — Education for all"
12.12.98
"Indian Women : From Rhetoric to Reality — Beyond the Personal-8"
"Science Behind Miracles-1"
"International Programmes"
13.12.98
"Searching the Frontiers-5 : Optical Glass"
14.12.98
"EMMIT-98"
"The Samanthas — An Anthropo Vision"

Hindi Telecast

प्रात: 6.00 से 6.30 बजे तक

8.12.98
"एरण : भाग-2"
"पारगत प्रकाश में खनिजों के प्रकाशीय गुण : भाग-2"
9.12.98
"बाँसुरी : एक अनोखा साज भाग-2"
"ठरनन"
10.12.98
"तमिलनाडु का अभिलेख संग्रह : एक अनमोल खजाना"
"मानव जीवन में सहयोग : भाग-2"
11.12.98
"परम्परा की एक टूटती कड़ी — चिड़ावा ख्याल भाग-2 : प्रदर्शनात्मक विश्लेषण"
"लोक राग : भाग-2"
14.12.98
"एक्युपंक्चर : एक चिकित्सा पद्धति : भाग-1"
"कुसुमित कैक्टस मैरमक्स"

News from Abroad

CSIR/TWAS Fellowship for Postdoctoral Research

The Council of Scientific and Industrial Research (CSIR) of India, and the Third World Academy of Sciences (TWAS) have instituted a number of fellowships for foreign scholars from developing countries who wish to pursue postdoctoral research in newly emerging areas in science and technology for which facilities are available in the Laboratories/Institutes of the CSIR.

The Council of Scientfic and Industrial Research is the premier civil scientific organization of India, which has a network of research laboratories covering wide areas of industrial research in biological, physical, chemical, engineering and information sciences.

The fellowships will be tenable in CSIR Research Laboratories/Institutes in India, at monthly stipend of Rs. 3750/- for the entire duration (maximum stay is 12 months). No provision will be made for any accompanying family member. In addition, the research fellows will be entitled to subsidized accommodation. The monthly stipend will not be convertible into foreign currency.

The visiting scientist should not take up any other assignment while on the CSIR/TWAS fellowship in India.

The minimum qualification requirement is a Ph.D. degree in science or technology. The candidate should be a regular employee in a developing country and should be holding a research assignment.

Requests for CSIR/TWAS postdoctoral research fellowhips should be sent by the applicant to both CSIR and TWAS.

The cost of international travel by shortest route will be met by TWAS.

The deadline for receipt of all requests is **1 June of each year.**

Further details may be obtained from (1) Ms. Helan Grant, Third World Academy of Sciences (TWAS), C/o ICTP, P.O.B. 586, Trieste 34100, Italy, Phone : (+39 40) 2240 387, Fax : (+39 40) 224559, E-Mail : twas@ictp.trieste.it OR (2) Dr. R.K. Bhandari, Council of Scientific and Industrial Research (CSIR), Anusandhan Bhavan, 2 Rafi Marg, New Delhi 110 001, India, Phone : (+91-11) 3714208, Fax : (+91-11) 3710618/3714788, E.Mail : bhandari@csirhq.ren.nic.in

Indian Legislative Process

Chitta Ranjan Roy*

S.G. Deogaonkar. Parliamentary System in India. New Delhi, Concept Publishing Company, 1997. Pp. 189. Rs. 100/-.

A majority of the nations in today's world have adopted a democratic structure in their respective political systems. A democratic polity envisages a legislative process. In other words functioning by a 'Parliament'. The term 'Parliament' has been derived from the French word *Parler* which means 'to talk'. The term hence connotes a particular place where the political representatives and rulers assemble, sit and discuss serious national and international problems to enact legislations for their country. The modern parliamentary system of the world owes its origin to Western countries particularly the United Kingdom. The very word 'parliamentary' refers precisely to a specific type of democratic polity wherein the supreme power is vested in the body of people's representatives called 'Parliament'. The parliamentary system is one in which parliament as the legislative wing of the country's government enjoys a place of pre-eminence in the governance of the state. Under the Constitution of India, the legislature of the Union is called Parliament — which is the pivot on which the political system of the country revolves.

The book under review, Parliamentary System in India written by S.G. Deogaonkar, is a worthwhile study that focuses on all the parliamentary and political experiments that India, since independence, has adopted in the functioning of its structures alongwith their conventions and norms in its political paradigm. Its thrust is on the real work and conduct of the two houses of our bi-cameral legistrature and broadly covers nearly every political, social, economic, juridical, administrative and constitutional aspects.

The book also discusses the most interesting thematic issue i.e. the interrelation between Executive and the Legislature.

The development of legislative bodies in India has spread over a fairly long period. The evolution of parliamentary procedure and practice, on the other hand cannot really be said to have begun earlier than 1921, when the first Legislative Assembly of India came into existence. While the earlier Legislative Council was, in fact no more than an extension of the Governor-General's Executive Council, the Assembly had the distinct shape of the Legislature with two houses. It is true that even this Assembly was far short of sovereign status, but it was the first Indian legislature to have elaborate rules of procedure.

The main source of these rules of practice and procedure was the Government of India Act of 1919. This contained provisions relating to its composition, tenure, and general powers, besides several rules connected with matters of procedure. All these were contained in a document known as the *Manual of Business and Procedure*. There were two other sources for rules of procedure, namely, the 'Indian Legislative Rules' and a set of standing orders for regulating the Assembly's procedure. These sources continued to be the basis of all later procedure. Even the Constituent Assembly of India (Legislative) adopted them in 1947, with modifications for guidance in procedural matters.

As a matter of fact, when the new Constitution came into force, substantial alterations had to be made to make the Rules adequate and suitable for the Indian Parliament. The practice and procedure of the Indian Parliament has thus been evolving all the time as much as a result of the compulsions of developing situations as through a conscious, continuous search for more adequate methods of work for better fulfilment of its growing tasks.

Quite unbelievably, the author does not attempt any introduction to parliamentary political process in India in his book, for reasons best known to him. In its place, in the introduction itself the author narrates the ideological base, the preamble, the directive principles and the fundamental rights and duties in a sketchy manner without going into deep details.

Comprising seven chapters, introduction apart, the book discusses the Executive of the Union, the total composition of the Indian Parliament, the process of parlia-

---

**Reader, Department of Political Science, Delhi College of Arts & Commerce (University of Delhi), New Delhi-110 023.*

mentary control on law enactment and national finance, the committee system in parliament, privileges, powers and prerogatives of the Indian Parliament, the parliament secretariats and finally the supreme court and the parliament — an inter-relation as well as interaction.

The author despite having a rich experience of writing more than half a dozen books in his field of expertise why forgot to add a historical prelude to the development of legislative bodies in India before stretching out to discuss the working of the Indian Parliament, could not be deciphered. It defies the appearance of any convincing answer. But it richly deserves an abstersion.

Similarly, right at the very outset, the author has not mentioned at all as to where from the parliamentary model of the Indian framework of government had been borrowed? What is its source? Or, as a matter of fact what is the historical legacy behind this framework of government? Unfortunately nothing has been mentioned or highlighted. This omission is of a serious nature for it keeps the readers totally in the dark about the source of the Indian Constitution.

Furthermore, the author should have distinctly mentioned or discussed the ideological base of the Constitution of India with its proper and vivid illustrations. Because caught in the labyrinth of ideology the reader would be extremely baffled to identify the true ideological base of India's democratic polity with parliamentary framework — whether it is secularism, or liberalism, or socialism, or democratic values (with the concepts of liberty, equality and justice), or republicanism, or mixed economy? As a developing political economy since 1947, the ideological base is a crucial subject matter which ought not be sidelined at any cost whatsoever. These major lacunae are serious weaknesses in an otherwise closely introspective book.

One last, but not the least, objection is about the length and space devoted to explanations about every sub-topic of every chapter throughout the book. They could have been surely drafted in a more descriptive and elucidating way for enhanced understanding of the students and readers in this field.

Deogaonkar is a noteworthy author known for his academic contributions. But if such contributions rest only on sketchy and sagging illustrations, his painstakingly written books can easily be misunderstood as made-easies or key-books on the allied subject. A reviewer's eyes can read such future remarks well in advance.

CHARUTAR VIDYA MANDAL

P.B.NO. 22 • VALLABH VIDYANAGAR-388 120 • GUJARAT • INDIA
GRAM : CHARUTAR • PHONE : 46493, 47108, 47398

Vallabh Vidyanagar is a seat of learning and populated by academicia — the students and teachers. It attracts students from all over India for broad spectrum of courses of all faculties.

Charutar Vidya Mandal requires teaching faculty for M.Sc./P.G. Diploma course in general area of Industrial Chemistry and technology on self-finance basis for its V.P. & R.P.T.P. Science College, Vallabh Vidyanagar-388 120, Gujarat State.

1. **Professor** (One)
2. **Lecturer** (One) in Plastics Processing & Testing

E.Q. For (1)

Ph.D. in Polymer Science/Polymer or Plastics Technology/Industrial Polymer Chemistry in addition to qualification prescribed in (2) below.

For (2) : M.Sc./M.Tech. in Polymer Science/Polymer or Plastics Technology/Plastics Processing & Testing/Industrial Polymer Chemistry.

REQUIREMENTS :

For (1) : Ten years experience of teaching and/or research experience of guiding research at doctorate level. Actively engaged in research and having published work of high quality.

For (2) : At least 55% marks or equivalent grade, good academic record. Experience in relevant field preferable.

Pay scales as per Sardar Patel University norms. For availing the application form and other necessary details send self addressed envelope addressed to Principal. The completed application should reach on or before **20th Dec. 1998 or within 20 days** of publication of this advertisement whichever is later.

C.L. Patel
CHAIRMAN

R.C. Desai
HON. SECRETARY

Centre for Distance Education
UNIVERSITY OF HYDERABAD

(A Central University established under an Act of Parliament)
P.O. Central University, Hyderabad-500 046

ADMISSION NOTIFICATION 1999

The University invites applications from eligible candidates for admission to the following Programmes of Study to be offered THROUGH DISTANCE EDUCATION MODE from January 1999.

1. **Post-graduate Diploma in Computer Science — (PGDCS)**
2. **Post-graduate Diploma in Planning and Project Management — (PGDPM)**
3. **Post-graduate Diploma in Environmental Education & Management — (PGDEM)**
4. **Post-graduate Diploma in Translation Studies in English — (PGDTSE)**
5. **Post-graduate Diploma in Translation Studies in Hindi — (PGDTSH)**
6. **Post-graduate Diploma in Human Rights — (PGDHR)**
7. **Post-graduate Diploma in Television Production — (PGDTVP)**
8. **Post-graduate Diploma in Library Automation and Networking — (PGDLAN)**
9. **Post-graduate Diploma in Telecommunications (PGDTC)**
10. **Post-graduate Diploma in Energy Management (PGDEGM)**

Each of the above Programmes is of **ONE YEAR** duration.

Graduates from any recognised Indian University are eligible for the above Programmes except for **PGDLAN** for which Bachelor's degree in Library Science is required. For **PGDTC** Programme, study of subjects related to Mathematics or Physics at graduation level is necessary. The medium of instruction and examinations is **ENGLISH** except in case of **PGDTSH.**

Almost all the above are job or skill oriented programmes and the target group can be *either* in-service personnel looking forward to improve their skills and knowledge *or* fresh graduates who intend to improve their chances of finding employment on successful completion of these programmes.

Admission will be made on the basis of **MERIT.** There will be **NO ENTRANCE TEST.**

The University admits only a limited number of students to the above Programmes. Reservation exists in respect of candidates belonging to **SC/ST/PH** categories. Other details like programme fee, study schedule, contact classes, course delivery schedule etc, can be found in the Prospectus.

Cost of PROSPECTUS-cum-APPLICATION FORM : Rs. 125/- by hand and Rs. 150/- (if by post).

Sale of application forms to begin from : 26.11.'98 (Thursday)
Last date for submission of filled-in applications : 31.12.'98 (Thursday)

PROSPECTUS-cum-APPLICATION FORM can be had from the office of the Asst. Registrar (Distance Education) in the University Campus, Gachibowli OR from the **'Golden Threshold'** premises of the University located on Nampally Station Road. Requests for supply of applications by post should be addressed to the Asst. Registrar (DE), University of Hyderabad, Central University P.O., Hyderabad-500 046 accompanied by a crossed demand draft for Rs. 150/- drawn in favour of the Finance Officer, University of Hyderabad, on any nationalised bank payable at Hyderabad.

Applications received after due date are liable to be rejected.

CDE/ADM/99
17.11.1998

P. Murali Krishna
OFFICER ON SPECIAL DUTY

ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY

RAJENDRANAGAR, HYDERABAD-500 030

NOTIFICATION — ADMISSION TO Ph.D COURSES 1998-99

Applications are invited from eligible candidates for admission to the following Ph.D. Courses.

QUALIFICATIONS FOR ADMISSION : Master's Degree in the concerned faculty and major field with a minimum of 50% marks in traditional system or OGPA of 8.00/10.00 or 3.25/4.00. SC/ST candidates with a pass in traditional system or OGPA of 7.50/10.00 or 3.00/4.00 are eligible. Basic Degree i.e. B.Sc. (Ag.)/B.Sc. (Horti.)/B.V.Sc. & A.H./B.Sc. (Home Science)/B.H.Sc. (Rural) as the case may be is essential.

MAJOR FIELDS OF STUDY FOR Ph.D COURSES

FACULTY OF AGRICULTURE : Agronomy, Genetics & Plant Breeding, Soil Science & Agril. Chemistry, Entomology, Agricultural Economics, Plant Physiology, Plant Pathology, Horticulture and Extension Education.

FACULTY OF VETERINARY SCIENCE : Animal Nutrition, Dairy Science, Feed & Fodder Technology, Animal Genetics & Breeding, Physiology, Poultry Science, Animal Reproduction & Gynaecology, Medicine, Parasitology, Pathology and Surgery.

FACULTY OF HOME SCIENCE : Foods & Nutrition, Human Development & Family Studies, Family Resource Management and Textiles & Clothing.

Applications alongwith prospectus can be had in person on payment of Rs. 200/- from 23.11.1998 to 18.12.1998 from any of the following authorities.

1. Principal, College of Agriculture, Rajendranagar, Hyderabad-500 030, A.P.
2. Principal, College of Home Science, Saifabad, Hyderabad-500 004, A.P.
3. Principal, College of Veterinary Science, Tirupati-517 502, Chittoor Dist., A.P.
4. Principal, Agricultural College, Bapatla-522 101, Guntur District, A.P.

Those desirous of obtaining the application by post should send their requisitions with full address to the above authorities alongwith a crossed Demand Draft for Rs. 210/- drawn in favour of 'COMPTROLLER, ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY, RAJENDRANAGAR HYDERABAD-30'. Postal orders/Money orders will not be accepted. Applications shall be sent by post upto **14.12.1998.**

Applications duly filled in including those sent through Employers should reach "THE REGISTRAR, ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY, RAJENDRANAGAR, HYDERABAD-500 030, A.P. on or before **21.12.1998** by 4.00 P.M. Postal delays will not be condoned.

V. Prabhakar Rao
REGISTRAR

UNIVERSITY OF MYSORE

No. ET.8/335/98-99
Dated : 12.11.1998

Viswavidyanilaya Karya Soudha,
"Crawford Hall", Mysore-570 005.

NOTIFICATION

Applications in 8 (EIGHT) SETS in the prescribed form from the eligible Indian citizens are invited for the following Teaching and Non-teaching (Technical) posts in the Post-graduate Departments at Manasagangotri campus, Post-graduate Centres at Mandya and Hassan and University Constituent Colleges. The eligible Indian Nationals who are residing abroad may also apply

1. TEACHING :

SCALE OF PAY :

1 Professor Rs. 4500-150-5700-200-7300
2 Reader Rs. 3700-125-4950-150-5700
3. Lecturer Rs. 2200-75-2800-100-4000

{with admissible allowances such as D A , H R.A., and C.C.A The scales are currently under revision.}

QUALIFICATIONS :

1. PROFESSOR :

The incumbent shall be an eminent scholar with published work of high quality, and shall be actively engaged in research with a minimum of 10 years experience in post-graduate teaching and/or research at the University/National level Institutions Experience to include guiding research at Doctoral level

OR

An outstanding scholar with established reputation who has made significant contribution to knowledge

2. READER :

Prospective candidates shall have consistently good academic record with a Doctorate Degree or equivalent published work Candidates from outside the university system, in addition, shall also possess at least 55% marks or an equivalent grade at master's degree level

Applicants shall possess eight years experience of teaching and/or research including 3 years for a Ph D Degree, and shall have made some mark in the areas of scholarship as evidenced by quality of publications, contribution to educational innovation, design of new courses, curricula, etc

3. LECTURER :

Prospective candidates shall have consistently good academic record with at least 55% marks or an equivalent grade at master's degree level in the relevant subject from an Indian university or an equivalent degree from a foreign university. Candidates, besides fulfilling the above described qualification, should have cleared the Eligibility Test for Lecturers conducted by the University Grants Commission/CSIR or a similar test accredited by the University Grants Commission

In the case of Music a traditional or a professional artist with highly commandable professional achievement in the subject concerned is also eligible to apply

DETAILS OF VACANT TEACHING POSTS

SL. No	*Department*	*Number of Vacancies*		
		Professor	*Reader*	*Lecturer*
BACKLOG VACANCIES :				
POST-GRADUATE DEPARTMENTS - MANASAGANGOTRI CAMPUS :				
1	Statistics	1 ST	—	2(1 SC, 1 ST)
2.	Botany	—	1 ST	—
3	Biochemistry	—	1 ST	—
4	Law	—	1 ST	1 ST
5	Sericulture	—	—	1 SC
6.	Mathematics	—	—	2(1 SC, 1 ST)
7	Physics	—	—	2(1 SC, 1 ST)
8	Computer Science	—	1 SC	2(1 SC, 1 ST)
9	Sanskrit	1 ST	1 SC	—
10	Jainology & Prakrit	—	—	1 ST
11	Ancient History & Archeology	—	1 ST	1 ST
12	Economics	1 SC	—	—
13	Geography	—	—	1 SC
14	Journalism	—	—	1 ST
15	History	1 ST	—	—
16	Political Science	—	1 ST	1 ST
17	Philosophy	1 ST	—	—
18	Social Work	—	1 SC	—
19	Management Science	—	1 SC	1 ST
20.	I D.S (Urban & Regional Planning)	—	—	1 SC
	TOTAL	05	09	17
CONSTITUENT COLLEGES :				
21.	Physical Education	—	—	1 SC
22.	Psychology	—	—	2(1 SC, 1 ST)
23.	Chemistry	—	—	2(1 SC, 1 ST)
24	Mathematics	—	—	2(1 SC, 1 ST)
25.	Geology	—	—	1 ST
26.	Physics	—	—	1 SC
27	Computer Science	—	—	2(1 SC, 1 ST)
28	Philosophy	—	—	1 SC
29.	Urdu	—	—	1 SC
30	Statistics	—	—	1 SC
31	Vocal Music	—	—	2(1 SC, 1 ST)
32	Sericulture	—	—	1 SC
33.	Dramatics	—	—	1 SC
34	Dance	—	—	1 SC
35	Mrudangam	—	—	1 SC
	TOTAL			20
CURRENT VACANCIES				
POST-GRADUATE DEPARTMENTS- MANASAGANGOTRI CAMPUS AND P.G. CENTRES AT HASSAN AND MANDYA.				
1	Zoology	1	—	*1 Cat. I
2.	Physics	3	—	1 Cat. I
3.	Botany	1	1	—
4.	Mathematics	1	1	1 GM
5	***Environmental Science	1	—	1 GM
6.	Jainology & Prakrit	1	—	—

7.	Ancient History & Archaeology	1	—	—
8	Anthropology	1	—	—
9	Management Science	1	—	—
10	Political Science	1	—	—
11.	University Science Instrumentation Centre (USIC)	—	1	—
12	Chemistry	1	2	2 (Cat. IIA, GM)
13	Computer Science	—	1	—
14.	Library & Information Science	—	1	1 GM
15	Sericulture	—	2	—
16	Biotechnology	1	1	1 GM
17	Education	—	1	—
18	Hindi	—	1	—
19	Philosophy	—	1	—
20	Journalism	—	1	—
21	Urdu	—	1	—
22	Linguistics	—	1	—
23	Sociology	—	—	1 SC
24	Social Work	—	—	1 GM
25	Sanskrit	—	—	1 SC
26	Psychology	—	—	1 SC
27	Institute of Development Studies (M U R P)	—	—	1 ST
28	Microbiology	1	—	1 GM
29	Computer Science (MCA)	1	—	1 GM
30	Physical Education	1	1	—
31	Geology	—	1	—
32	Applied Botany	—	—	*1 GM
33	Kannada Prof 1 Mandya, 1 Hassan Reader 3 Mysore, 1 Mandya, 1 Hassan Lecturer 3 Mandya, 2 Hassan	2	5	5 {1-SC, 1-ST, 1-Cat. I, 2-GM **(1-W)}
34	English Prof 1 Mandya, 1 Hassan Reader 3 Mysore, 1 Mandya & 1 Hassan Lecturer 3 Mandya, 2 Hassan	2	5	5{1-ST, 1-Cat. I, 3-GM **(1-W)}
35	Economics Prof 1 Mysore, 1 Mandya Reader 1 Mysore, 1 Mandya Lecturer 3 Mandya	2	2	3 {1-ST, 1-Cat. I, 1-GM}
36	Commerce (Hassan)	1	1	3{1-SC, 1-ST, 1-GM}
37	Polymer Science (Mandya)	1	1	3{1-SC, 1-ST, 1-GM}
38	Sugar Technology (Mandya)	1	1	3{1-SC, 1-ST, 1-GM}
39	Biosciences (Hassan)	1	1	3{1-SC, 1-ST, 1-GM}
40	Electronics (Hassan)	1	1	3{1-SC, 1-ST, 1-GM}
	TOTAL	28	35	44

The posts marked * are temporary but are likely to be continued
****reserved for Women candidates.**
*****Those with qualifications in related subjects such as Botany; Zoology, Geology and Chemistry may also apply.**

RESERVATIONS FOR CURRENT VACANCIES :

PROFESSSORS : 28 POSTS.

1 SC - 05 (2 women)
2 ST - 01
3 Cat I - 01
4 Cat IIA - 05 (2 women)
5 Cat IIB - 01
6 Cat IIIA - 01
7 Cat IIIB - 01
8 GM - 13 (4 women) (1 Ex-Serviceman)

READERS : 35 POSTS

1 SC - 06 (2 women)
2 ST - 01
3 Cat. I - 02 (1 Women)
4 Cat IIA - 05 (2 women)
5 Cat IIB - 02 (1 Women)
6 Cat. IIIA - 01
7 Cat IIIB - 01
8 GM - 17 (5 women) (1 Ex-Serviceman)

Sl No	*Department*	*Number of Vacancies*		
		Professor	*Reader*	*Lecturer*
CONSTITUENT COLLEGES :				**LECTURER**
41	Kannada			1 Cat. I
42	Hindi			2 (1-GM, 1-Cat I)
43	Urdu			1 GM
44	English			2 (1-GM, 1-Cat.I)
45	Chemistry			4{1-Cat. IIA, 2-GM, (1 Women) 1 Cat. IIB}
46	Physics			*1 GM
47.	Mathematics			1 GM
48	Botany			1 GM
49	Statistics			2 (1-GM, 1-ST)
50	Geology			1 GM
51	Psychology			1 GM
52	Ancient History & Archaelogy			1 SC

53	[illegible]	1 GM
54	Geography	1 Cat 1
55	Commerce (B B.M.)	1 SC
56.	Vocal Music	1 GM
	TOTAL	22

The qualification/specialisation required for U.S I C (Sl No 11) Reader M Sc, Physics with specialisation in Electronics or M E Electronics with research experience or Ph.D

DETAILS OF NON-TEACHING VACANT POSTS

SL. NO.	NAME OF THE POST AND SCALE OF PAY	NO OF POSTS	RESERVED FOR	QUALIFICATION
		PRASARANGA		
1.	Director Rs. 3300-100-3700-125-4700-150-5300	01	GM	Post-graduate degree with five years teaching experience, literary work and flair for extension work.
		UNIVERSITY LIBRARY		
2	Asst. Librarian Rs. 2200-75-2800-100-4000 (UGC scale of pay likely to be revised)	02	SC-1 (Backlog) GM-1	**

**QUALIFICATION : a) A pass in the National Level Test conducted for the purpose by the U G C or any other Agency approved by UGC
b) Master's Degree in Library Science/Information Science/Documentation or an equivalent professional degree with at least 55% marks or its equivalent grade plus a consistently good academic record.

OR

Master's degree in Arts/Science/Commerce or equivalent degree with at least 55% marks or its equivalent grade with Bachelor's degree in Library Science/Information Science/Documentation or an equivalent professional degree with at least 55% marks or its equivalent degree plus a consistently good academic record.

SL. NO.	NAME OF THE POST AND SCALE OF PAY	NO OF POSTS	RESERVED FOR	QUALIFICATION
		UNIVERSITY COMPUTER CENTRE		
3	Programmer Rs 1900-50-2300-75-2900-100-3700	01	SC (Backlog)	**

**QUALIFICATION 1) At least a Master's degree in any field in Engineering or Applied Science or Mathematics
2) At least 3 years experience in Systems programming for a large Computing System.
NOTE The qualification is relaxable in case of candidates with good experience and skill in the operation of the System.

SL. NO.	NAME OF THE POST AND SCALE OF PAY	NO OF POSTS	RESERVED FOR	QUALIFICATION
		CENTRAL WORKSHOP		
4	Foreman Rs 1520-40-1800-50-2300-75-2900	01	SC (Backlog)	A pass in SSLC examination with Dip In Mechanical Engineering
		D.O.S. IN PHYSICS		
5	Mechanic Rs 1130-30-1400-40-1800-50-2100	01	SC (Backlog)	Dip In Electrical or Mechanical Engg
		D.O.S. IN GEOLOGY		
6	Curator Rs. 1900-50-2300-75-2900-100-3700	01	GM	B Sc graduate with Geology as one of the subject either as major or optional
		KUVEMPU INSTITUTE OF KANNADA STUDIES		
7	Tech Asst (Manuscript) Rs. 1280-30-1400-40-1800-50-2300-75-2375	01	SC	**

**QUALIFICATION
ESSENCIAL At least P U C with Kannada as second language or equivalent examination of any recognised University Training in preservation of manuscripts in any recognised Institution
DESIRABLE At least five (5) years experience in working in a manuscripts Library in any capacity

SL. NO.	NAME OF THE POST AND SCALE OF PAY	NO OF POSTS	RESERVED FOR	QUALIFICATION
		D.O.S. IN CHEMISTRY		
8	Store Keeper Rs 1400-40-1800-50-2300-75-2675	01	GM	B.Sc, degree with Chemistry as one of the subjects either as major/minor or optional

GENERAL INFORMATION AND INSTRUCTION

1 The prescribed application forms may be obtained from the Registrar, University of Mysore, Mysore-570 005, on payment of (non-refundable) fee of Rs 250/- for the post of Professor, Reader and Lecturer (Rs 125/- for SC/ST) and Rs 200/- for the Non-teaching post (Rs. 100/- for SC/ST)

a) The said amount may be paid in cash at the Office of the Registrar/Finance Officer, University of Mysore, Mysore; or

b) be credited to any branch of State Bank of Mysore to the Head of Account "Mysore University Funds — Block Grant" stating in the challan "fee towards application form for the post of __________" or

c) may be sent in the form of a Crossed Demand Draft drawn in favour of the Registrar, University of Mysore, Mysore

d) **Postal Orders, Money Orders and Cheques will not be accepted.**

2 A self-addressed envelope of the size 12"x6" duly affixing the Postal Stamps of the value of Rs 20/- should be sent if the application forms are required to be sent by post.

3 The application forms will be issued/posted only on the production of the receipt/challan/D D for having paid the application fees.

4. The last date for issuing the Application forms is 11.12.1998.

5. The last date for receiving the duly filled in application forms in the office of the Registrar, University of Mysore, Mysore is 15.12.1998.

6. The copies of publications and true copies of Testimonials/Certificates/Caste Certificates/Marks Cards should be enclosed to all the eight sets which will not be returned.

7 Those who are employed should send their application through their employer so as to reach this office on or before the last date prescribed.

8 All belated, incomplete and the applications which are not in the prescribed form in eight sets will be rejected and no intimation in this regard will be sent to the candidates.

9 (a) Persons below 18 years of age and above 60 years need not apply in respect of teaching posts.

(b) In case of Non-teaching posts the candidates must have attained the age of 18 years and must not have completed 35 years in case of persons belonging to Scheduled Caste, Scheduled Tribe or Category-1, 33 years in case of persons belonging to other Categories other than General Merit, and 30 years in case of General Merit candidates, as on the last date fixed for the receipt of applications However, the upper age limit is relaxable in deserving cases.

10 Separate applications are to be submitted for each post.

11 No TA/DA will be paid either for attending the interview or for joining the post.

12. **Candidates selected should be prepared to work anywhere in Mysore University Jurisdiction including the Post-graduate Centres at Hassan and Mandya.**

13 The candidates selected will be usually appointed on probation for a period of two years, probationary period may be extended if the University so desires.

14 The right is reserved with the University either to fill or not to fill the posts advertised.

15 The applicants shall carefully fill in the "Biodata form" enclosed with the prescribed application form and enclose it to all sets of applications *with out fail.*

NOTE :

Reservations have been made in accordance with the Government Orders No DPAR 11 SBC 94 dated 22-2-1994, DPAR 8 SBC 95 dated 20.6 1995, DPAR 34 SNN 95, Dated 15 7 1996, and are in accordance with the provision of the Karnataka State Universities Act, 1976

For the vacancies classified as SC/ST category, candidates belonging to other categories are not eligible to be considered and therefore they need not apply

For the vacancies categorised for the groups other than SC/ST, candidates not belonging to that particular group may also apply

The recruitment will be made by open selection.

The applicants claiming the benefit of reservation shall enclose Caste Certificates issued by the competent authorities not below the rank of Tahsildar, along with the application and this Certificate should not have been issued earlier than one year before the date of this advertisement Further, the Certificates should be in the proforma prescribed vide G O No SWD 40 BCA 95 dated 8 2.1995

Candidates who had already applied for the various teaching posts in response to the advertisement of Mysore University Notification No. ET 8/538/96-97 dated 24th April 1997, need not send fresh application for the same posts again. However, if they have any additional information OR documents in support of their applications already sent, the same may be sent to the Registrar, University of Mysore, Mysore on or before the last date prescribed in this notification in an envelope duly superscribed "ADDITIONAL INFORMATION FOR THE POST OF __________"

REGISTRAR

CLASSIFIED ADVERTISEMENTS

NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION & RESÉARCH

Sector-67, (Phase 10), SAS Nagar 160 062
(PUNJAB)
E-mail : niper@chd.nic.in
(MINISTRY OF CHEMICALS & FERTILIZERS, GOVT. OF INDIA)

NIPER invites applications for the Faculty positions

The National Institute of Pharmaceutical Education and Research (NIPER) is an institute of national importance established by Govt. of India at S.A.S. Nagar, Punjab adjoining Chandigarh. The Institute is having excellent facilities for advanced education and research in pharmaceutical sciences and technology and is looking for faculty of high calibre and potential, willing to face the challenge of building this institute into a center of excellence. The focus is on masters, doctoral and post doctoral programmes. The openings are for Professors, Assoc. Professors and Asstt. Professors in the provisional grades Rs. 14300-450-22400, Rs. 14300-450-19700 and Rs. 12000-375-18000, respectively

Besides the salary the appointees will be eligible to all the allowances as per Central Govt. Rules. The Institute encourages the faculty members to do consultancy work or work on sponsored projects. All appointments are contractual in nature for a period of 5 years which can be renewed.

The openings are in the following disciplines and candidates having background in the areas indicated against each discipline will be considered.

a) Pharmaceutical Analysis

Development of new analytical techniques in pharmaceutical formulations using modern chromatography and spectroscopic techniques, application of HPLC, LC/MS and Mass Spectrometry. Validation of new analytical methods to support development activity. Familiarity with GMP, GLP and FDA regulatory requirements. Experience in preparation of reference standard samples and establishing impurity profiles of bulk drug substances desirable.

b) Medicinal Chemistry

Strong background in design and synthesis of new organic molecules for various therapeutic areas that will interact with the novel molecular target/biological systems. Training in combinatorial chemistry.

c) Pharmaceutical Technology

Post 1 : Experience in development of various process for the manufacture of pharmaceuticals and transfer of these process to manufacturing facilities. Design, development and optimization of new and existing routes in generics. Development of commonly employed unit processes in ecologically acceptable form and creating expertise in different unit processes such as ozonolysis, hydrogenation, catalysis, oxygenations, oxidation, reductions etc. Expertise in use of enzymes/microorganisms for synthetic transformations and fermentation technologies.

Post 2 : A chemical engineer/pharmaceutical engineer having experience in establishing and operating scale up facilities of various types of pilot plants for synthetic bulk drug, natural products and formulations. Knowledge of contemporary developments in plant design, computer aided controls, treatment of chemical waste and energy conservation desirable. The candidate will be required to teach basic chemical engineering to pharmaceutical technology students.

d) Pharmaceutics

A strong base in the development of new dosage forms for drugs and biologicals, design and execution of pre-fourmulation and formulation studies using newer concepts. Background in the analytical method development desirable

e) Pharmaceutical Management

Experience of applying various management principles to pharmaceutical industry and practice. The candidate will be involved in teaching management courses.

f) Pharmacology & Toxicology

Research interest in molecular, and cellular approach in testing new chemical entities in different therapeutic areas. Development of new in vitro models. Exposure to regulatory toxicology/histopathology and experience in interpretation of data from laboratory animal studies Pharmacokinetics and drug metabolism studies.

g) Natural Products

Candidates having experience in the isolation, characterization of compound from natural products. Standardisation of procedures for various herbal formulations using modern techniques with markers. Exposure to HPLC, HPTLC, LC-MS and modern analytical techniques desirable. Recombinant DNA technology/micropropagation aimed at improving the output of secondary metabolites.

h) Pharmacy Practice

Candidates having experience and inclination to work in clinical/hospital pharmacy.

i) Educational Development

Experience and inclination to pharmaceu-

UNIVERSITY OF KERALA

THIRUVANANTHAPURAM 695 034

No PR1/1030/27/98.

NOTIFICATION

Applications are invited for appointment to the following posts

Sl No	Name of Post	Department	Scale of Pay Rs	Age as on 1-1-98
1	MATRON*	University Women's Hostels	1050-1660	Not less than 30 years
2	PROFESSOR	O R I & MSS Library	4500-7300	Not more than 50 years
3	UNIVERSITY LIBRARIAN	University Library	4500-7300	Not more than 45 years
4	TECHNICAL ASSISTANT	Education	2060-3200	Not more than 35 years

Note: Usual age relaxations as per rules (For Post 2 & 3 relaxation in upper age limit also for those in teaching service of the University Post 2 is Open Merit Posts 3 & 4 are reserved for Backward Class, the forthcoming turn being that of Ezhava, but others can also apply)

*** Women only. The person selected has to stay in the Women's Hostel.**

Qualifications: **Post 1 -A pass in SSLC Examination. Post 2**-Scholar in Sanskrit/Malayalam as per UGC norms Post 3- M L I Sc, Master of Documentation with 55%, 1 year specialisation in Information Technology/ Archives & Manuscripts; at least 10 years as Deputy Librarian in University Library or 15 years as College Librarian, evidence of innovative library service and published work **Desirable:-** M Phil /Ph D in Library/ Information Science/ Documentation/ Archives & Manuscripts **Post 4:-** M Sc with not less than 50% marks and Diploma in Video Systems **Desirable:-** Ph D./B Ed/ 2 years experience in software production.

Vacancy: Post 1 - for preparing a panel, **Post 2,3 & 4 one each**

Cost of Application: For **Post 1 Rs 20/-,Post 2 Rs 350/-, Post 3 Rs 200/-& Post 4 Rs. 100/-**

Mode of Remittance: By D D drawn on SBT/SBI/Dist.Co-oP Bank (Candidates residing outside the State may send DD drawn on any Nationalised Bank), in favour of the Finance Officer, University of Kerala, payable at Thiruvananthapuram or by pay-in-slip at the University cash counter (Applicants who send DD should note on its reverse, their name and purpose of remittance.

Application Forms and more details can be had from the Section Officer, Forms Section, University of Kerala, Thiruvananthapuram 695 034, specifying post and enclosing DD/Pay-in-slip, towards cost of application.

Last Date: 24th December, 1998.

Dr.G.Sidhardhan
Registrar

11 November, 1998

KLJ

tical/technological educational development. The incumbent is expected to organise and develop print and electronic teaching aids for pharmaceutical sciences.

The candidates are required to have doctoral degrees with consistently good academic record, an appropriate experience and a high standing and established reputation in the respective disciplines. It is expected that the Professor, Associate Professor and Assistant Professor should have working experience of at least 10, 8 and 5 years respectively, in the teaching/research/industry. The requirements of doctoral degrees and/or duration of experience may be relaxed in case of candidates having otherwise an outstanding merit, high quality of experience and conspicuous potential. Mere fulfilment of qualifications and experience requirement laid down does not entitle a candidate to be called for interview. Interested candidates may send their biodata along with names and addresses of three referees indicating time needed to join and Demand Draft of Rs. 200/- (drawn in favour of Director, NIPER and payable on any scheduled bank at Mohali/Chandigarh) as application fee (Rs 100/- for SC/ST candidates) to the Director, National Institute of Pharmaceutical Education and Research, Sector 67, Phase-X, SAS Nagar, Near Chandigarh (India) 160 062, so as to reach **within 30 days** in case of applicants in India and **45 days** in case of candidates abroad, from the date of publication of this advertisement. The post applied for and the discipline should be mentioned on the envelope.

DIRECTOR

XAVERIAN EDUCATIONAL SOCIETY'S

FR. AGNEL COLLEGE OF ARTS & COMMERCE, PILAR-GOA

WANTED LECTURER

Applications are invited for the Post of Full-Time Lecturer in SOCIOLOGY.

Academic Qualifications :

The candidate should possess a Master' Degree in the relevant subject (i.e. Minimum 6 papers) with atleast 55% marks or its equivalent grade and good academic record (i.e. atleast 50% at the graduation level with applied for or an average of 50% marks at the three examination i.e. S.S.C., H.S.S.C. and graduation taken together.

Candidate for the above mentioned post should have cleared the Eligibility test for lecturers conducted by the U.G.C., C.S.I.R., S.E.T. or similar test accredited by U.G.C. If the candidates having passed the said Eligibility test are not available, candidates fulfilling other conditions would be considered for appointment on purely temporary basis.

Scale of Pay : Rs. 2200-75-2800-100-4000 plus admissible allowances.

Service conditions : As prescribed by Goa University, Director of Education, Govt of Goa and other competent authorities. Persons who are employed shall send their applications through proper channel Break in service, if any, should be accounted for. Interested candidates should apply giving full details of academic qualifications from S.S.C onwards clearly indicating the subjects offered, marks scored and class/division and percentage obtained at all public examinations, teaching experience, address, date of birth etc.

True copies of marks statements of all public examinations passed should be enclosed.

Applications duly completed in all respects should reach the Principal **within 15 days** from the date of publication of this advertisement.

Dr. Biblal G. Dias
PRINCIPAL

BASELIOS POULOSE II CATHOLICOS COLLEGE

BASELIOS MOUNT-PIRAVOM-686 664

WANTED

1 **Lecturer in Electronics** · 1 (Open quota)

(**Qualification** : As per M.G. University & Kerala Govt. rules)

Apply to the Principal, Baselios Poulose II Catholicos College, Baseliosmount, Mulakulam (n) P.O., Piravom-686 664 **within one month** from the date of publication of this notification Application form can be had from the College office on payment of Rs 100/- in person or Rs 110/- by DD payable at Piravom branch of any scheduled bank

Piravom
20.11.98 **PRINCIPAL**

SANT LONGOWAL INSTITUTE OF ENGG. & TECHNOLOGY

LONGOWAL (DISTT. SANGRUR)-148 106 (PUNJAB)

(ESTABLISHED BY GOVT. OF INDIA)

NOTIFICATION

Applications are invited for the following positions by **15th Dec. 1998 :**

A. Deans-cum-Professor - 02

B. Department, Professor, Asstt. Prof Specialisation.

01. Comp. Sc & Engg. — Professor - 02, Asstt. Prof - 03, Specialization : Artificial Intelligence/Operating Systems/Networking/Data Base systems.

02. Electronics & Comm. Engg — Professor - 01, Asstt. Prof - 02, Specialization : Electronic Circuits & Systems/Comm. Engg./Microprocessors.

03 Electrical & Instrumentation Engg. — Professor - 02, Asstt. Prof. - 04, Specialization : Power Systems/Machines/Control/Process Control/Bio-medical/Opto-electronic Instrumentation.

04. Mechanical Engg. — Professor - 04, Asstt. Prof - 07, Specialization : Thermal Sc./Machine Design/Production Engg./Welding.

05. Chemical Technology — Professor -02, Asstt Prof. - 02, Specialization : Polymer/

Shri Gajanan Shikshan Sanstha's

SHRI SANT GAJANAN MAHARAJ COLLEGE OF ENGINEERING

SHEGAON - 444 203 DIST BULDANA (MS)

WANTED

Applications are invited on plain paper with full bio-data accompanied by attested certificates of qualifications and experience for the following posts along with crossed IPO/DD for Rs. 50/- drawn in favour of **Principal, S.S.G.M.C.E., Shegaon (C.R.) 444 203 Dist. Buldana, within 15 days** from the date of advertisement.

	Dept.	P	AP	L	Total
1	Electronics & Telecom Engg	03	05	-	08
2.	Electrial Engg.	01	03	04	08
3.	Computer Sci. & Engg	02	03	04	09
4.	Mechanical Engg.	01	03	05	09
5.	Applied Mechanics	-	-	02	02
6.	Applied Physics	-	-	02	02
7.	Applied Chemistry	-	-	01	01

Note : (1) Qualification and pay-scale as per AICTE norms. (2) Senior faculty members who are about to retire or wish to continue even after retirement can also apply. (3) Higher start admissible for deserving and highly experienced candidates

S.S.PATIL
CHAIRMAN

DR.D.G.WAKDE
PRINCIPAL

Paper & Pulp Tech:

06. Food Technology — Professor - 01, Asstt. Prof. - 02, Specialization · Dairy Engg./Food Processing.

07. Physics — Professor - 01

08. Chemistry — Professor - 01, Asstt. Prof - 01, Specialization : Inorganic/Physical/Organic Chemistry

09. Mathematics — Professor - 01, Asstt. Prof. - 01

QUALIFICATIONS & EXPERIENCE :

A. Dean-cum-Professor

These are tenure positions Candidates should have same Engineering qualifications and experience as for the post of a Professor in addition to the administrative, academic planning, general planning and development experience in a responsible position in a Technical Instutute of repute.

B. 01. PROFESSORS :

— Ph.D. with first class Bachelor/Master's Degree in Engineering/Technology OR Ph.D with first class B.Sc./M.Sc in appropriate area.

— 10 years distinguished experience in teaching/industry/research out of which 5 years must be at the level of Asstt. Prof. or equivalent.

— Depending upon the experience & expertise, Professors may be assigned the duties of Training & Placement and Students Welfare.

02. ASSTT. PROFESSORS :

— First Class Master's Degree in appropriate branch of Engineering/Technology. Ph D in appropriate area of Science

— Five years experience in teaching/industry/research at the appropriate level

GENERAL INFORMATION :

01 The minimum qualifications and experience shall be as prescribed by Govt. of India/AICTE from time to time and applicable at the time of selection.

02. Pay Scales & Allowances : As per the Govt. of India norms.

03. The number of positions indicated above may be increased/decreased at the discretion of the Competent Authority.

04. Retired/retiring persons having equivalent qualifications and experience may apply for employment as per Instutute rules.

05. The candidates who had applied earlier are to send applications afresh

06 The number of posts reserved for SC/ST/OBC candidates are as follows.

Position :

Professors SC - 02, ST - 01, OBC - 04,
Total 07

Asstt Profs SC - 03, ST - 01, OBC - 05,
Total 09

07. One position of Asstt. Prof in Mech Engg. Deptt. is for Workshop Supdt. Candidates having requisite qualifications and experience may apply.

08 Applications through proper channel are to be submitted conforming to the following format

1 Position applied for and area of specialisation 2 Name (Male/Female) 3. Date & Place of Birth 4. Father's Name 5. Whether SC/ST/OBC 6. Address for correspondence with Tel No if any 7. Educational & professional qualification in chronological order giving the details of degree awarding Board/University, year of passing, division, %age, Award/Distinction if any 8 Details of promotion to Reader/Professor under PPSI/MPS/CAS if applicable 9. No & list of publications 10 Academic/Research Industrial/Professional and Administrative Experience 11. Details of past & present employment with pay scale, basic pay and total emoluments 12 Any other relevant information 13. Details of DD of Rs. 100/- (Rs. 50/- for SC/ST/OBC) in favour of Director, SLIET payable at Longowal/Sangrur.

09. Candidates are requested to indicate their Telephone/Fax Nos. in their applications.

DIRECTOR, SLIET

INDIAN STATISTICAL INSTITUTE

203, Barrackpore Trunk Road,
Calcutta-700 035

Senior Diploma in Statistics (SDS) and Junior Diploma in Statistics (JDS), examinations will be conducted at **Bangalore, Bombay, Calcutta, Delhi, Hyderabad and Madras** centres (if adequate number of candidates apply) in **April, 1999.** Information booklet containing **Byelaws and Syllabi** and application forms will be available on sending (i) self-addressed envelope (size 25cm x 20 cm) and (ii) advance payment of **Rs. 70/-** (Rupees Seventy only) by BANK DRAFT endorsed in favour of INDIAN STATISTICAL INSTITUTE, CALCUTTA or in cash at our Cash Office here (**11.00 hrs. to 14.00 hrs.**) Application forms, duly filled in with normal fees etc must reach the **Secretary, Examinations Committee,** latest by **31st January, 1999** or by **9th February, 1999** with a late fee of **Rs. 10/-.**

The **JDS** and **SDS** are recognised by the Government of India as equivalent to **B.Sc. in Statistics** and **M.Sc. in Statistics** respectively for employment purpose only

---

THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

VADODARA - 390 002.

NOTIFICATION NO. ADE/08 OF 1998-99

Applications are invited for the following posts in the University Office The prescribed form alongwith other details like place of vacancy requirements of qualification etc. can be obtained from the University Office from **16-11-1998** to **19-12-1998** on any working day by sending a request to the Registrar, M S. University of Baroda, Vadodara - 390 002 alongwith a self addressed envelope of size 30 cms. x 12 cms. accompanied with a Demand Draft drawn in favour of the Registrar, M. S University of Baroda of Rs. 50.00 (Rs. 15 00 for members of Scheduled Caste and Scheduled Tribe) which includes cost of application form and fees, or by making payment in cash to ADE Section of the University Office for the same during working days only between 11-00 a m. to 2-00 p.m No amount will be accepted either by M.O or by Postal Order except in cases of SC/ST where they can send Postal Order of Rs. 15.00 for the concerned post or pay the amount in cash as stated above The SC/ST applicants will have to furnish a copy of the Caste Certificate, at the time of requesting for application form. The SC/ST candidates coming from outside Gujarat State while requesting the application form shall also have to produce a certificate from the competent authority of the Gujarat State mentioning that the Gujarat State has recognised them as SC/ST for the purpose

The application form duly completed in all respect alongwith necessary enclosures should reach the Registrar, M. S University of Baroda, Vadodara - 390 002 on or before **19-12-1998.**

VADODARA
Dated 11-11-1998

N.M. PANDYA
I/c.Registrar

Sr No.	*Name of the Post*	*Scale of Pay*	*No. of post*
1.	**Registrar**	12000-16500	1
2.	**University Auditor**	10000-15200	1

REGIONAL ENGINEERING COLLEGE

TIRUCHIRAPPALLI-620 015 TAMIL NADU

DEPARTMENT OF MANAGEMENT STUDIES

MBA ADMISSIONS 1999

HIGHLIGHTS OF RECT

- ☐ REC Tiruchirappalli is ranked third among the country's premier technical institutions.
- ☐ MBA - a credit system based four semester programme offers specialisations in Systems, Marketing, Human Resources, Production & Operations and Finance.
- ☐ Guest lectures by working professionals from various organisations like BHEL.
- ☐ OCTAGON provides the state of art computer facilities including Intranet, Internet, Multimedia, Business Computing etc.
- ☐ REC's tie-up with TATA, IBM and BHEL provides the students exposure to business environment.
- ☐ Interaction with SIDBI, IDBI and CII through Science and Technology Entrepreneurship Park enables the students develop their entrepreneurship skills.
- ☐ The programme enjoys high level of placement through Campus Recruitment.
- ☐ Indo UK-REC Projects provide an International learning platform for the students.

ELIGIBILITY

A Bachelor's or Master's degree in any discipline. (Final Year students may also apply, subject to the condition, that they produce evidence of the required qualification on or before the admission date.)

ADMISSION PROCEDURE

The Applicants will have to appear for an entrance test to be conducted at 10.00 a.m. on March 14, 1999 at the following test centres.

***CHENNAI *NEW DELHI**
***HYDERABAD *TIRUCHIRAPPALLI**

RECT reserves the right to change/cancel any test centre. The test centre of your choice should be indicated while requesting for the prospectus and application form. Otherwise, centre will be allotted by the Admission Co-ordinator.

The shortlisted candidates will be invited for the group discussion and interview to be conducted at Tiruchirappalli during June 1999.

PROSPECTUS & APPLICATION

Prospectus and application form can be obtained from :

Dr. M. SACHITHANANDAM,
ADMISSION CO-ORDINATOR
DEPARTMENT OF MANAGEMENT STUDIES
REGIONAL ENGINEERING COLLEGE,
TIRUCHIRAPPALLI-620 015
Tel. (0431) 552281 - Ext. 271 Fax : 552133
Email : sachi@rect.ernet.in

Mail your request or apply in person for prospectus and application forms with two self addressed slips by enclosing a crossed Demand Draft for Rs. 600/- (Rs. 200/- for SC/ST) drawn in favour of **"The Principal, Regional Engineering College, Tiruchirappalli"** payable at Tiruchirappalli-15 (SBI 1617), DD drawn on or after 1st Nov. '98 only will be accepted.

Write behind the DD your name, Postal address and specify MBA. The college will not be responsible for any loss or delay in transit.

Issue of application starts from : 10.12.1998
Last date for issue of applications : 19.02.1999
Last date for receipt of filled in applications : 26.02.1999

Nurturing Managerial Excellence

TIRUCHIRAPPALLI

Dr. P. Aravindan
PRINCIPAL
RG-TRY-RECT-42-98-99

INTERNATIONAL SEMINAR ON RESEARCHES IN SCHOOL EFFECTIVENESS AT PRIMARY STAGE JULY — 14-16, 1999

School Effectiveness at Primary Stage

The NCERT announces the fifth International Seminar on Researches in School Effectiveness at Primary Stage to be held at New Delhi during July 14-16, 1999. The focus of the seminar will be on researches particularly dealing with the effect of intervention strategies for School Effectiveness at Primary Stage.

Invitation for Papers

Full papers are invited on the above mentioned theme. The papers should be based on experimental research work or on case studies showcasing intervention strategies at primary stage of schooling in developing countries. The educational scenario at primary stage in India encounters majority of two-teacher schools, crowded classrooms, large number of out-of-school and hard-to-reach children, low level of achievement and lack of infrastructure. Keeping these issues in perspective, a large number of intervention programmes have been anchored by the State to bring about qualitative improvement in school education at primary stage Researches in the forthcoming seminar should be such as to provide solutions to the multifarious problems of primary education in the context in which the schools operate in India.

Call for the Paper

Full and final paper not exceeding four thousand words along with an abstract in about three to four hundred words typed on A-4 size paper, in double space should reach the NCERT at the contact address by February 26, 1999 in the following format :

- ☐ Title
- ☐ Introduction
- ☐ Objectives
- ☐ Methodology
- ☐ Findings
- ☐ Implication of findings for school effectiveness
- ☐ Time period of the study when conducted
- ☐ Whether published
- ☐ Full name of the investigator, institutional affiliation, address for correspondence, phone no., fax no., e-mail address and any other relevant information.

Registration

Registration will be restricted only to the principal paper presenter.

Presentation

All the full papers received at the NCERT headquarters will be screened for ensuring their quality and relevance. Authors will hear of the selection of their paper from the NCERT after the screening. This is the stage of the final selection of the papers of overseas authors and preliminary round of selection for Indian authors. After this stage only Indian authors of the selected papers will be invited regionwise, to make presentations of their full papers in the regional seminars. The NCERT will be organizing four such regional seminars at Ajmer, Bhopal, Bhubaneswar and Mysore in the month of April, 1999. The exact dates and the venue of the regional seminars will be conveyed to the Indian authors of the selected papers by the Coordinator, Regional Seminar. Papers presented during the regional seminars will be subjected to a scrutiny by a Jury of experts and only promising papers will be chosen for the main event scheduled for July 14-16, 1999 at New Delhi.

Foreign authors, however, will be exempted from participating in the regional seminars.

Only the principal author of the selected paper will be invited to make a presentation in the International Seminar and participate in its deliberations.

Travel, Board and Lodging

Travel as per entitlement will be reimbursed by the NCERT. Board and lodging will be provided to the invitees from within the country. It is expected that the international participants will meet their own travel cost. However, the possibility of arranging travel grants for a limited number of international participants will be explored. The NCERT on its part may extend local hospitality to the overseas participants.

Contact Address

Dr. Ved Prakash
Prof. & Head, DPEPCRG
NCERT, Sri Aurobindo Marg,
New Delhi-110 016, India
Phone : 91-11-6515382
Fax : 91-11-6868419, 91-11-6864141
E-mail : dirc@giasdl01.vsnl.net.in

Note : i. Information will be updated periodically and may be accesed at the Website : **http://www.geocities.com/Athens/Parthenon/2686/research.htm**

ii. To facilitate immediate processing of your communication please print ISSE-1999 on top left corner of the envelope.

Published by SUTINDER SINGH, on behalf of the Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi-2.
Grams: ASINDU. Phones: 3230059, 3232429. Telex: 31-66180 AIU IN Fax: 011-3236105 E-Mail : aiu@del2.vsnl.net.in

Printed by Tara Art Press, B-4, Hans Bhawan, B.S. Zafar Marg, New Delhi-110002. Tel. 3318626, 3319686